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TENNESSEE VALLEY AGRICULTURAL CORRELATING COMMITTEE

Knoxville, Tennessee

Unnumbered Publication

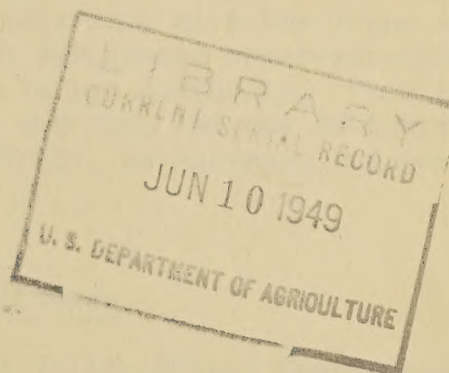
April 1949

PROCEEDINGS

THIRTY-FIRST VALLEY-STATES CONFERENCE

The Tutwiler, Birmingham, Alabama

Wednesday, April 6, 1949



United States Department of Agriculture; Land-Grant Colleges and
Universities of Alabama, Georgia, Kentucky, Mississippi, North
Carolina, Tennessee, and Virginia; and Tennessee Valley Authority
Cooperating

ACKNOWLEDGMENTS

Cooperating Agencies

Under a Memorandum of Understanding, dated November 20, 1934, the U. S. Department of Agriculture, Tennessee Valley Authority, and the land-grant colleges of the seven Valley States expressed as their mutual objective in the Tennessee Valley: "To coordinate those phases of the research, extension, land-use planning, and educational activities of these agencies which are related to a unified, regional agricultural program."

Correlating Committee

To facilitate coordinated effort in meeting the problems of the region and to further development of a coordinated program, the Memorandum of Understanding provides for a Correlating Committee to consist of three members and an executive secretary.

Organization. Thomas P. Cooper, Chairman, representing the land-grant colleges; J. C. Dykes, representing the U. S. Department of Agriculture; J. C. McAmis, representing the Tennessee Valley Authority; C. F. Clayton, Executive Secretary.

Valley-States Conference

In order to facilitate discussion of regional problems and to receive advice and recommendations of responsible representatives of the cooperating agencies, the Correlating Committee meets at regular intervals with the deans and directors of the land-grant institutions and with designated representatives of the Department of Agriculture and the Tennessee Valley Authority. This group constitutes the Valley-States Conference. The chairman and the executive secretary of the Correlating Committee serve, respectively, as chairman and secretary of the Conference.

Standing Committees

On request of the Correlating Committee, the Valley-States Conference established a number of standing committees to which the Correlating Committee may refer problems or proposals for special consideration and recommendations or reports. These committees, established at the meeting of the Conference on April 6, 1949, are the Committee on Plant Facilities and Products, Committee on Water and Land use, and Committee on Rural Facilities, Services, and Industry.

Members of these committees, to be appointed by the Chairman of the Conference, have not been named.

State Contact Officers

The Memorandum of Understanding also provides for the selection of a State contact officer by each of the seven land-grant colleges. The contact officer seeks to inform the college staff regarding the unified regional development program in the Tennessee Valley and to adjust and coordinate the State program with the Valley program.

Contact Officers. S. G. Chandler, Georgia; T. B. Hutcheson, Virginia; E. J. Kinney, Kentucky; W. D. Lee, North Carolina; E. C. McReynolds, Tennessee; L. A. Olson, Mississippi; R. M. Reaves, Alabama.

Committee on Tennessee Valley Program

To facilitate the work of State contact officers, each land-grant college selects from its faculty a Committee on Tennessee Valley Program. The State contact officer is a member, and usually the chairman of this committee.

TENNESSEE VALLEY AGRICULTURAL CORRELATING COMMITTEE

PROCEEDINGS

THIRTY-FIRST VALLEY-STATES CONFERENCE

Meeting at
The Tutwiler, Birmingham, Alabama
Wednesday, April 6, 1949

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ACTIONS TAKEN BY THE CONFERENCE

SummaryAgricultural Program Correlation in the Tennessee Valley

Proposed report of Correlating Committee. In a memorandum to the Chairman of the Correlating Committee, Dean T. B. Hutcheson, Chairman of the Special Committee, appointed at the meeting of the Conference on October 6, 1948, states:

Attached is a report of the special committee appointed by you at the October 1948 meeting of the Valley-States Conference in Asheville. This committee was instructed by the Conference "to review, clarify, and brief the additional proposals and recommendations under discussion; that they report to the Correlating Committee, and that the Correlating Committee present this report to the next meeting of the Conference for discussion and action.

By electing to confine our attention to the proposals having to do with structure and functions of the standing committees, we have neglected a considerable number of other recommendations which were embodied in the original report. Our purpose in so doing is not to imply that the other recommendations are any less important or desirable, but rather to limit our work to what we judged to be the central objective of the earlier tentative proposal.

A copy of Dean Hutcheson's memorandum and a copy of the committee's report were transmitted to members of the Valley-States Conference on March 23, 1949.

Dean Hutcheson submitted the committee's report to the Conference (appendix, p. 65).

The following motion, made by Director Schaub, was adopted:

That the report of the committee, proposing the appointing of three new committees from the Conference, be approved and that the old standing committees be abolished (text, p. 25).

The motion was further clarified as follows (text, p. 27):

Schaub. I am proposing that we follow the report of the committee with respect to setting up these committees and that we abolish the old committees.

Cooper. Adopt the three, with the functions indicated?

Schaub. Yes.

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The committees established, and their functions, are as follows:

1. Committee on Plant Facilities and Products

This committee would advise the Correlating Committee and, through it, the principal parties, upon plans, policies, and programs with respect to the use of research and production facilities engaged in the development of new and improved fertilizer materials. For example, they would make studies and recommendations as to the kinds and amounts of specific materials needed now or in the future for the accomplishment of agreed upon regional agricultural and watershed protection objectives. They would help identify the promising but unexplored fields of alternative fertilizer sources.

2. Committee on Water and Land Use

This committee would be concerned with adjustments in land use, the testing and large-scale use of materials produced in experimental plant operations, farm forestry, and the application of engineering skills and sound farm management principles to the readjustment of practical farming operations, all in the interest of watershed protection and agricultural development.

3. Committee on Rural Facilities, Services, and Industry

This committee would be primarily concerned with the social and community aspects of the integrated program, including such factors as the development of the full economic potentialities of rural production, distribution and marketing facilities; educational assistance to farmers' cooperatives; and the stimulation of rural enterprise complementary to food and fibre production on farms.

In the discussion of a second motion made by Director Schaub for the adoption of that part of the committee's report relating to "Establishment of the Standing Committees," the recommendations under this heading (appendix, p. 67) were amended (text, pp. 29 to 33) to read as follows:

The chairman of the Conference appoints to each committee from among the regular members of the Conference four committeemen, one of whom he designates as chairman. Each committee shall have a minimum of one USDA, one TVA, and one land-grant college representative. The chairman of the Standing Committee may, with the prior concurrence of the appropriate administrative official of the concerned agency, invite the participation of additional staff members in the work of his committee, taking into account the various skills and points of view required for the satisfactory study of assigned problems.

ACTIONS TAKEN BY THE CONFERENCE

The executive secretary of the Correlating Committee serves as the secretary of each Standing Committee and will issue notices of meetings as the chairman may direct. He shall, upon request, assist in the correlation of the work of the various Standing Committees; shall be the custodian of an official record of each Standing Committee; and shall have the privilege of the floor on such committees for the purpose of presenting matters related to the performance of these functions.

Standing Committees shall meet at least once each year at a time and place agreed upon by the committee and report at regular meetings of the Valley-States Conference.

The recommendations of the committee, as amended, were adopted by the Conference (text, p. 34).

Cooperative research. In its report to the Conference, the Correlating Committee states (appendix, p. 59):

The committee agreed that effective correlation of the agricultural program in the Valley requires a clear definition of the agricultural objectives under the unified program of watershed protection and agricultural development provided for in the Tennessee Valley Act and a presentation of current research projects and work programs organized in relation to these major objectives. The executive secretary was instructed to work out, in cooperation with selected members of the staffs of the cooperating agencies, a draft of a statement of this type for consideration by the Correlating Committee.

A further report on this subject will be made to the Conference at a later date.

REA-TVA relationships. In its report to the Conference, the Correlating Committee states (appendix, p. 59):

The suggestion for a report on REA-TVA relationships in the Tennessee Valley originated with Secretary Anderson. Pursuant to this suggestion, the Correlating Committee requested the Department and the TVA to prepare and submit a statement on this subject. No statement has been submitted to the Correlating Committee. In view of the time that has elapsed and of the fact that inquiries regarding the report have several times been made by the Correlating Committee, the committee now proposes to drop this item from its agenda, unless representatives of the agencies involved desire to initiate steps to get the suggested report prepared and submitted.

USDA estimates of production goals for agriculture. In its report to the Conference, the Correlating Committee states (appendix, p. 59):

At its meeting on February 28, 1949, the Correlating Committee discussed the problem presented by the establishment of production goals

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for agriculture in the Tennessee Valley, and the steps that have been taken in regard to this matter were reviewed. The committee directed the executive secretary to arrange, if possible, a meeting of responsible officials of the Department of Agriculture with the Correlating Committee for the purpose of clarifying the problems involved and working out a solution, if possible. The Correlating Committee proposes to hold such a meeting as soon as mutually convenient arrangements can be worked out.

Meeting of Committee of Presidents Land-Grant Colleges of the Valley States with TVA Board of Directors. In its report to the Conference, the Correlating Committee states (appendix, p. 59):

A meeting of the presidents of the Valley land-grant colleges was held in Knoxville on February 7. The day was spent in discussion of various problems which involved relationships and in the development of the cooperative work between land-grant colleges and the Tennessee Valley Authority. The group suggested that the presidents request a meeting with Secretary of Agriculture Brannan and Chief of the Soil Conservation Service Hugh Bennett, for the purpose of reiterating the principles of a unified program which the land-grant colleges wish to preserve with respect to interagency relationships. It was requested that, insofar as possible, the Valley colleges seek the support of the Executive Committee of the Association of Land-Grant Colleges. Each State of the Valley Conference was requested to undertake the preparation of a concrete appraisal of program results to date and prepare facts and figures to indicate the progress that has been made. It is understood that the findings will be submitted to the Tennessee Valley Authority for combination and the preparation of an overall report, which report is to be presented over the signatures of the presidents of the land-grant colleges. It was suggested by the chairman that the college presidents of the various States write the Secretary of Agriculture, requesting an intensification and expansion of the pilot farm classification and analysis study to include other counties in States other than North Carolina.

Representation of Federal Agencies
in Valley-States Conference

U. S. Department of Agriculture. In its report to the Conference, the Correlating Committee states (appendix, p. 60):

Originally Departmental membership in the Valley-States Conference included the Chief of the Office of Experiment Stations and the Director of the Extension Service, in addition to the Departmental representative on the Correlating Committee. At the meeting of the Conference on October 2, 1946, the Correlating Committee stated that it had recommended designation of three additional Departmental representatives to serve as members of the Conference.

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Pursuant to this recommendation, the Secretary of Agriculture designated Mr. Dave Davidson, Director, Field Service Branch, Production and Marketing Administration; Dr. R. E. McArdle, Assistant Chief, Forest Service; and Mr. T. L. Gaston, Assistant to the Chief, Soil Conservation Service, as members of the Conference. The Department has been requested to name a representative to succeed the late Mr. Davidson.

Tennessee Valley Authority. In its report to the Conference, the Correlating Committee states (appendix, p. 60):

The recommendations that members of standing committees be regular members of the Conference and that TVA have at least one representative on each of the standing committees led to the request that the Tennessee Valley Authority officially designate five members of its staff, in addition to TVA's representative on the Correlating Committee (Mr. McAmis), to serve as members of the Conference.

Accordingly, TVA has named the following members of its staff to serve as members of the Conference: Neil Bass, Chief Conservation Engineer; C. H. Young, Director, Division of Chemical Engineering; Willis M. Baker, Director, Division of Forestry Relations; E. H. White, Director, Division of Agricultural Relations.

It is assumed that TVA may name an additional member at a later date.

State Contact Officers

In its report to the Conference, the Correlating Committee states (appendix, p. 61):

At the meeting of the Correlating Committee on February 28, 1949, the various steps taken by the committee to get contact officers appointed by the Valley States colleges were reviewed. The committee authorized the executive secretary to visit the various colleges and discuss with the directors the question of designating a contact officer to serve actively in that capacity and possible arrangements for more effective participation of these officers in the correlating processes.

Marketing of Farm Products

In its report to the Conference, the Correlating Committee states (appendix, p. 61):

At the meeting of the Correlating Committee on February 28, 1949, attention of the committee was called to the statement on the subject of marketing of farm products made by Director L. I. Jones at the meeting of the Conference on April 7, 1948. The viewpoint of

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the committee was that the matter under discussion should be handled through the administrative channels of the colleges and that no useful action could be taken by the Correlating Committee.

Summary of Data on Crop Response to Phosphate Fertilizer in the Valley States

Dr. Howard T. Rogers, Agricultural Relations Division, Tennessee Valley Authority, made a progress report to the Conference on the preparation of this summary (text, pp. 37-39). The proposal to prepare a summary of experimental data on phosphate originated in a recommendation made by the Committee on Research which was reported to the Conference at its meeting on April 3, 1945. Further reports on this proposal were made to the Conference on October 5, 1945 (Proc. XXIV, 6), October 2, 1946 (Proc. XXVI, 4), April 7, 1947 (Proc. XXVII, 4), and on October 1, 1947 (Proc. XXVIII, 4). The progress report made by Dr. Rogers appears in the appendix, page 68.

Proposed Valley Film on Land Use

At the meeting of the Conference on October 6, 1948, Mr. White, Mr. McReynolds, and Mr. Chandler made statements to the Conference in regard to the work of the Southern Educational Film Production Service. The possible contribution of the Film Production Service to the development and understanding of the regional agricultural program was stressed by Mr. Chandler. Since the last meeting of the Conference, these possibilities have been further explored and resulted in the formulation of suggestions which Director Walter S. Brown sent to Director P. O. Davis for presentation to the Conference. In the statement presented to the Conference by Director Davis, Director Brown says: "I believe that the production of a Valley-wide moving picture, dealing with the fundamental agricultural problems, would provide the beginning for a real, genuine program for agriculture, and I am sure such an assignment for the Southern Film Production Service would give it a new concept of its possibilities as an educational source" (text, p. 40).

Representatives of the State Colleges from Alabama, Georgia, Mississippi, and Virginia expressed definite interest in participating in the suggested regional movie (text, p. 44).

Classification and Analysis of Farms in the Tennessee Valley

A progress report and a statement, based on preliminary field results on the project now being carried on in Haywood County, North Carolina, were made by Mr. Neil W. Johnson, Regional Project Leader, and Mr. Sam W. Atkins, Regional Field Leader. These statements appear in the appendix, pages 73 and 76.

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Classification and Analysis of Farms
in the Valley Counties of Mississippi

Because of the shortage of time and with the consent of Director Jones and Dean Welch, this topic was eliminated from the program (text, p. 45).

Regular Meetings of the Correlating Committee

In its report to the Conference, the Correlating Committee states (appendix, p. 62).

At its meeting on February 8, 1949, the Correlating Committee adopted the following statement:

Regular meetings of the committee will be held quarterly, on the first Wednesday in the months of February, April, July, and October, at a time and place agreed upon by the committee. The meetings in April and October will be joint meetings with the Tennessee Valley Conference. Special meetings may be held on call of the executive secretary, on a day and at a place and time agreed upon by the committee.

Dr. Harcourt A. Morgan

Dean Cooper reported (appendix, p. 62) that a statement had been sent to Dr. Harcourt A. Morgan pursuant to the resolution adopted by the Conference at its meeting on October 6, 1948.

In his letter of transmittal, dated March 24, 1949, Dean Cooper wrote:

Dr. Harcourt A. Morgan
Knoxville, Tennessee

Dear Friend:

The Valley=States Conference, at its meeting October 6, 1948, voted that, on behalf of the Conference, a statement should be prepared and transmitted to you in recognition of your services and in appreciation of your valuable contributions to agriculture and to the public welfare. Also, at that meeting, President Graham made a splendid and worth-while address in which he reviewed your outstanding achievements and the manner in which you have devoted your life to the welfare of the citizens of the South. I am happy to transmit herewith a statement on behalf of the Valley=States Conference - it is an attempt to pay tribute to you and your outstanding accomplishments and to express the

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high esteem and warm affection in which you are held by all members of the Conference.

Cordially yours,

/s/ Thomas Cooper

Thomas Cooper, Chairman
Tennessee Valley Agricultural
Correlating Committee

The statement enclosed with Dean Cooper's letter follows:

In view of the retirement of Dr. H. A. Morgan as director of the TVA, the Valley-States Conference passed a resolution of appreciation of his more than fifty years' leadership and services through scientific research, university administration, and directorship of the TVA.

The work of Dr. H. A. Morgan toward the elimination of the cattle tick which opened the way for the development of a livestock industry in the South; his understanding and vision of the importance of phosphates and lime for the regeneration of southern soils, the development of a diversified agriculture, the balancing of agriculture with local industries, the conservation of soil and water resources and their utilization for the benefit of the people of the region and the Nation, and his persistence in helping to translate the findings of research into the practices of the people on the farms and in the homes, will be an enduring benefaction to the people of the region.

His ideas of the unity of the natural and human resources of a region were embodied in the TVA. To the TVA as one of the original directors, he gave its basic philosophy and policy of making the indigenous local and state institutions and agencies the channels through which a great river system became the broad basis of a high adventure in creative cooperation for the fulfillment of the life and aspirations of the people of a great region.

The Valley-States Conference sends him this simple expression of appreciation with the affectionate wish that he will long continue to be a benediction to our people.

Dean Cooper then read to the Conference the following reply, dated March 30, 1949, which he had received from Dr. Morgan:

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Dean Thomas P. Cooper
 Chairman, Correlating Committee
 University of Kentucky
 Lexington, Kentucky

Dear Dean Cooper:

A few days in the hospital (nothing serious) has delayed acknowledgment of your letter of March 24 accompanying a testimonial from that Conference in which I have had such a long-time interest and for whose members I have great respect and affection.

The objectives of any organization determine not only its contribution but its length of life. Your organization has not only a lengthy but a contributing existence. Its future promises more in creative productive effort and blessing to the region and nation it serves.

When I read this message of the Conference to me, I felt a deep sense of humility and yet I am human enough to have felt also a sense of great satisfaction that, in my evening years, such warmth of appreciation should come from such worthy associates.

The message encourages me to press on. There is a great harvest of opportunity just out in front. The creative spirit of man will permit no slowing up of productive effort.

I am glad to have my sincere appreciation to all the members of the Conference passed through the hands of its Correlating Committee of which you are chairman.

Most sincerely yours,

/s/ Harcourt A. Morgan

Next Meeting of Conference

On recommendation of the Correlating Committee, the Conference voted to hold its next meeting in Atlanta, Georgia, on Wednesday, October 5, 1949. It is proposed to include reports of the standing committees of the Conference on the program of this meeting.

OPENING OF THE CONFERENCE

Dean Thomas Cooper, Chairman of the Conference, called the meeting to order at 9 a.m.

(For the roll of the Conference, see appendix, p. 55; and for the program of the Conference, see appendix, p. 57.)

AGRICULTURAL PROGRAM CORRELATION

REPORT OF CORRELATING COMMITTEE

Dean Thomas Cooper, Chairman of the Correlating Committee, presented the report of that committee (appendix, p. 58). Proceedings relating to this report follow.

PROGRESS REPORT

DISCUSSION

Agricultural Program Correlation in the Tennessee Valley

Proposed Report of Correlating Committee (appendix, p. 58)

Cooper. With your permission, I shall ask Dean Hutcheson, Chairman of the Committee on Correlation of the Tennessee Valley Agricultural Program: Proposed Reorganization of the Standing Committees, to present the committee's report at this time.

Hutcheson. The report does not represent the ideas of the subcommittee; it represents what the subcommittee assumes to be the substance of the report that was presented to it.

Dean Hutcheson then read the committee's report (appendix, p. 65).

Cooper. I imagine there are a number of items which the group might want to discuss or about which they might want to bring up questions.

Hutcheson. We have attempted not to put any of our ideas in this report. We have attempted to bring to you a brief of the report that was presented to us last year. That is what this report represents so far as your committee is concerned.

Young. I think there will have to be some clarification of those committees.

Cooper. The report is before you. I am sure there are matters which you wish to discuss and bring up. Shall I proceed by asking whether you have any points to bring up on the background statement? Dean Funchess, I know that you were very much interested last time. Have you anything to say?

Funchess. I served, Mr. Chairman, on some of those committees, and there is an implication here that the old committees failed and that the proposed committees can do a lot better job. I would like to know on what basis we failed and how we are so sure that

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Funchess. this new committee arrangement will be so much better. I would like to hear that discussed.

Cooper. Now if you want a discussion, there can be no nicer way than for you to start it out.

Funchess. This committee simply briefed the long report. We are just back where we started, except for a shorter report.

Hutcheson. That is what we were asked to do. We were not asked to write a report for the Correlating Committee. I do have this statement to make with reference to the old committee system: there is one improvement here in that this demands a meeting once a year.

Cooper. I do not remember that the assignment to the committee was simply dealing with a clarification of the report, without an expression of their own viewpoints. Maybe it was, but it seems to me that it pins a committee down pretty tightly if it does not have an opportunity of expressing its own viewpoints.

Dean Cooper read the resolution adopted at the Thirtieth Valley-States Conference, as follows:

That the chairman appoint a committee of three members of the Conference to review, clarify, and brief the additional proposals and recommendations under discussion; that they report to the Correlating Committee, and that the Correlating Committee present this report to the next meeting of the Conference for discussion and action.

Hutcheson. We at least briefed; we do not know whether we have clarified.

Young. I am not prepared to criticize severely any work we have done, but I don't think any of us have made a careful study or summary of our opinions, but rather what we think are the opinions of the person who wrote that first report. This thought has passed through my mind over the years--and it might be contrary to what everybody in this group thinks--that research should be done in order to have problems solved, and that research should be organized on a project basis, for a specific problem. Now when we get up regional projects to deal with specific problems, we are going to find differences of opinion. I should certainly oppose very strenuously any so-called integrated work that would put us in a straight jacket between the States, because the problems can vary. The problems in Virginia are entirely different than they are in Alabama. I am pretty sure they are. I don't know whether it will mean getting put in a straight jacket or not. I don't know whether it is an attempt to do so; I don't even know what the word "correlating" means. It can mean anything in the United States. I don't know whether it is to make us conform to a certain specific pattern or not.

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Young. I certainly won't agree to that. It will take the liberty of action away from the States.

Dean Hutcheson read from page 1 of the committee's report, as follows:

The States have pledged themselves to active participation in this unified program in the Tennessee Valley. Their representatives, collaboratively with USDA and TVA, define the nature and extent of programs of regional significance in agriculture, and unify their respective efforts insofar as practicable towards this mutually defined goal--

Hutcheson. Now this is an important paragraph: "retaining meanwhile full responsibility for the administration of all activities carried on in their respective States."

Funchess. Not administration and prosecution of the program? You lose its significance in the word "administration." That is not very clear. The formulation and prosecution of the program? Certainly, the formulation.

Hutcheson. We ought to keep in mind that the Correlating Committee is not a creature of this body, that it is responsible only to the Authority. Wouldn't you say so, Mr. Chairman?

Cooper. No, I wouldn't say that.

Hutcheson. How would you say it?

Cooper. I would say that the Correlating Committee was meant to represent the center or nucleus around which developments can take place and that the Correlating Committee is a representative of this group, as well as the participation of the Department of Agriculture and of the Authority. Mr. Bass, do you want to say something about that?

Bass. I think it would be much more accurate to say that the Correlating Committee is an instrument of the joint Memorandum of Understanding between the seven colleges, the Department, and the TVA. The committee's general purposes and functions were defined in the Memorandum of Understanding. The Memorandum itself is a very simple declaration of policy and intent; that is, each agency agrees to joint participation in the agricultural program in the region, insofar as the interests of the various parties are mutual. The Correlating Committee was the instrument to carry out the policy and intent of the Memorandum.

Hutcheson. Is the instrument between us and the Authority?

Bass. And the Department of Agriculture. I might add that I served on Dr. Hutcheson's committee, and my thought was that our chemical engineering and agricultural people and others would

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Bass. find particularly helpful the recommendations of committees organized along these functional lines. We thought that some such brief statement of committee assignments and duties would furnish the new committees with a broad charter which could be more specifically defined by the committees as they dealt with the particular subject. Certainly there is no idea in the minds of the TVA men that the old committees had failed. I was not aware of any such suggestion here at all but rather that here in the Tennessee Valley region we do have some tools and facilities that are not usually available in a going program of general agricultural and home development. Those particular facilities include, of course, the Muscle Shoals plant, where we develop for tests and demonstration new or improved forms of fertilizers, and methods of fertilizer production and use. But it appears to us that if the committee structure were related to the particular and unique things we have to work with in the region, then the work of these committees would more directly contribute to the Tennessee Valley regional program. It also contemplates that the full institutional and agency programs of research, education, and all the other activities will be going on concurrently and under their various agencies that are responsible for them. However, we do have the research laboratory and plant, and it can make a lot of different kinds of improved fertilizers and develop improved processes, and we think that particular committees of this Conference ought to be studying and working on the question of what particular kinds of products and give specific attention to the need and opportunities for particular kinds of research for particular kinds of products that should be developed. I hope that Mr. McAmis and Mr. White will elaborate on this.

McAmis. I don't think that I can add anything to what Mr. Bass has said.

White. It seems to me that one of the problems that we have to deal with is how TVA's interest can become a part of a regional program and be embodied in plans that are worked out on a day-to-day basis. We get the impression that one of the continuing problems is to get recognition of the fact that this region, because of actual physical conditions, tends to hinder the most effective program of regional development. It is hard to look beyond State lines which have for so long formed in a large measure the boundaries of institutional interest and activity. This committee setup, as I interpret it, was not an effort to segment the Valley interest but to integrate a program so that every committee could deal with a related part of the whole. It did seem like the structure of these committees had a tendency to split this work up into unrelated parts and did not afford the opportunity to deal with this thing on a regional basis. Integration does require some degree of sacrifice on the part of the institutions to which there is likely to be institutional resistance. I could cite one or two instances that came up in regard to a program, and we had this type of reaction: "There is no group that can represent our State unless there is someone from our State in that group." That meant

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- White. that there was no common interest clear across the region that could be accepted as the responsibility of a group when every State segment was not directly represented. To implement a regional program certainly does not require the taking away from the States anything that would in the long run be to the best interest of those States. Maybe more time should be given to delineating the criteria by which a regional program should be guided.
- Young. We must recognize that any program that we set up can vary. Any program or any other thing that we set up that does not recognize variations of conditions will wind up a failure to the extent that those variations are not recognized. If we set up a unified program, whatever it may be, one of the things we must recognize is that conditions vary and remedies and applications, or whatever you want to say, must be applied to the varying work, depending upon varying conditions.
- Funchess. I would like to ask Mr. Bass if he thinks this approach, this new committee setup, will result in a much more positive action by committees. Now in the past, we have done our best, and I think we have done a reasonably good job; not the best job, perhaps, that could have been done, but we have done a reasonably good job, and TVA, with its research facilities, produced a new form of phosphatic fertilizer. We have tried our best to do a reasonably good job of testing, to see whether we could help the TVA, within the limits of our research facilities and resources. In that case, we were fitting in and trying to render a service to TVA (for which they did a marvelous job to help us carry the burden), without our taking a positive action and saying: "Why don't you produce this, or that, or the other?" Now, if I correctly interpret what you say, this new committee setup will result in, maybe, the committee's suggesting to the commercial, industrial chemists at Muscle Shoals specific processes or products. I seriously doubt that any committee is in a position to do much along that line, because there wouldn't be enough industrial chemists.
- Bass. I believe I can illustrate the point I had in mind by going back to one of the early questions which was submitted to this Conference and to the very far-reaching decision recommended by the Conference. One of the first questions considered by this Conference was what kind of research should TVA engage upon and for what purpose. The recommendations that the Conference made to TVA, and the policy subsequently followed by TVA, was that TVA should first concentrate its efforts on the development of better and improved forms of phosphate. You know the results to date. A number of forms of high-analysis phosphates have been successfully produced. We could largely limit our efforts to further work on phosphates in the immediate future or we could follow up on discoveries by the research people on such things, as an illustration, as ring compounds; that is, chemical compounds embodying a number of plant nutrients in its molecular structure.

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- Bass. It seems to us that the scope of work of a particular committee might well and profitably be identified with the questions of how best to use this unique research facility here in the Tennessee Valley program for the development and use of the agricultural and water resources of the region rather than with the broad question of coordinated, general research activities. We assume, of course, that the broad program of research dealing with agricultural science will be a vital part of the program of the several colleges, and that the contribution of particular facilities of TVA can be meshed with the overall program of farm and home development in a manner that will also achieve certain objectives, such as watershed protection, which are particularly identified with the overall regional program. We do have unique tools to work with here in the region, such as an abundant source of electric power, forestry nurseries, and a fertilizer research laboratory. As I said a little while ago, the committees might be organized to concentrate a little more on the things that are unique insofar as the usual activities of research committees are generally thought of. We really want guidance and help in shaping the fertilizer research program and would prefer to see a committee give this guidance without having to deal with a large subject-matter field not directly related to the particular problem. I do want to add this that TVA certainly doesn't want to urge this unless the college and USDA representatives feel that the work of such a committee would be a little more closely related to the program in the region.
- Funchess. If I understand you properly, it is hoped under the new setup that the committee would have a more diverse activity, a broader vision of the area problems. You might get that out of the committee and you might not. It depends upon the personnel of the committee.
- White. I would like to illustrate one little thing that Mr. Bass was talking about--anhydrous ammonia. This committee made a decision as to the scope of it, where it would be, and the date of beginning, but the details were worked up in the State where the work was to be done, with the assurance that there would be a piece of regional research. What Mr. Bass was saying was that probably that committee would have been in better shape had it come in at a little earlier stage of that development. In fact, in this instance, part of the decision was made by TVA, part by the research committee, and part by the Mississippi Experiment Station. We got from the research committee a number of recommendations. It is entirely possible had this committee been consulted, the research would have taken a different direction or might not have been conducted at all--I don't know. It is a fact that when this committee picked it up, it handled it from there on out. This committee, if it is going to be responsible, ought not to grab hold of this thing after the wagon starts but it should be in on determining whether the wagon is going this way or that way.
- Funchess. It would be very foolish to disagree with that statement. Then by implication somewhere, you expect the committee to get in on the ground floor and do something that has already been started.

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White. I think that is what Mr. Bass implied. You take a part of the responsibility for whatever mistakes are made.

Funchess. One more thing while I am at it, Mr. Chairman. I am surprised that no one else seems to be interested enough to instigate this argument, if you want to call it that. The chairman is going to appoint all the members of these committees. There is nothing anywhere to indicate how long a man is to serve. Is he going to serve a life tenure or serve as long as the institution he serves keeps him on the pay roll? You may remember, in the old setup, the committee might invite a member of the United States Department of Agriculture to serve with them. Is that right?

Clayton. That's right.

Funchess. The committee in those days felt pretty sure that they would not get a man whom people didn't like. Now, the chairman of the Conference, under this proposal, will take responsibility for every member of the committee.

Clayton. No. The same arrangement that you are describing, Dean Funchess, applies in this report here; that is, under the old arrangement, the chairman of the Conference appointed the nucleus of the committee--that is, the initial membership, comprised of members of the Conference, was appointed by the chairman of the Conference--and then there was vested in the chairman of each standing committee authorization to add members from the staffs of the cooperating agencies.

Hutcheson. Is that in this?

Clayton. I believe it is there.

Dean Hutcheson read from the committee's report, as follows (appendix, p. 67):

Each committee shall have a minimum of one USDA, one TVA, and one land-grant college representative. The chairman of the standing committee may, with the prior concurrence of the appropriate administration official of the concerned agency, invite the participation of additional staff members in the work of his committee, taking into account the various skills and points of view required for the satisfactory study of assigned problems.

Funchess. That is different.

Clayton. Only in this respect: If you go to the Department of Agriculture or to an institution to ask for the services of a man, it is a normal administrative procedure to consult the administrative official in charge and ask whether it will be agreeable to him for this man to serve. That is all there is in it. It is just a normal administrative procedure.

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Funchess. The chairman of the Conference will appoint a minimum of so many. Then the chairman of that committee, according to what Dean Hutcheson just read, may bring in others, but you have got a minimum which includes the USDA man. In the past, the USDA man was invited by the committee. In this case, Dean Cooper will appoint the USDA man.

Cooper. I don't think that was a difference of intent.

Funchess. I am just stating what it says.

Clayton. In setting up the original committees, there was no intent to exclude, certainly, the USDA or the TVA, but it happens that at the time these committees were set up, there were no members of the Conference that we could appoint from the USDA. The USDA, at that time, had as members of the Conference, only its member of the Correlating Committee, the Chief of the Office of Experiment Stations, who refused to serve on any committee, and M. L. Wilson, Director of Extension, who also refused to serve on any committee; so we were stuck with a situation where we couldn't appoint anyone to those committees from USDA members of the Conference. The same thing was true of TVA at that time. The only official member of the Conference from TVA was Mr. McAmis, and he was here by reason of the fact that he was on the Correlating Committee. So there was, originally, no one to appoint except members of the land-grant colleges. That is why the chairman did not include USDA and TVA people among his appointments to the original committees. Therefore, we urged the chairman of the standing committee to make appointments from the staffs of USDA and TVA in order to round out these committees. So I don't think there is any difference in intent between the proposal here and the original setup.

Funchess. But there is a difference.

Cooper. I think you are bringing out very important matters. Certainly through this committee that is studying this or through this group as a whole there ought to be complete consideration given to it.

Funchess. Then, Mr. Chairman, you appoint the nucleus of the committee, including the USDA men. Now that is the language. I am talking about what it says, not what the intent is.

Dean Hutcheson read from the report of the committee, as follows (appendix, p. 67):

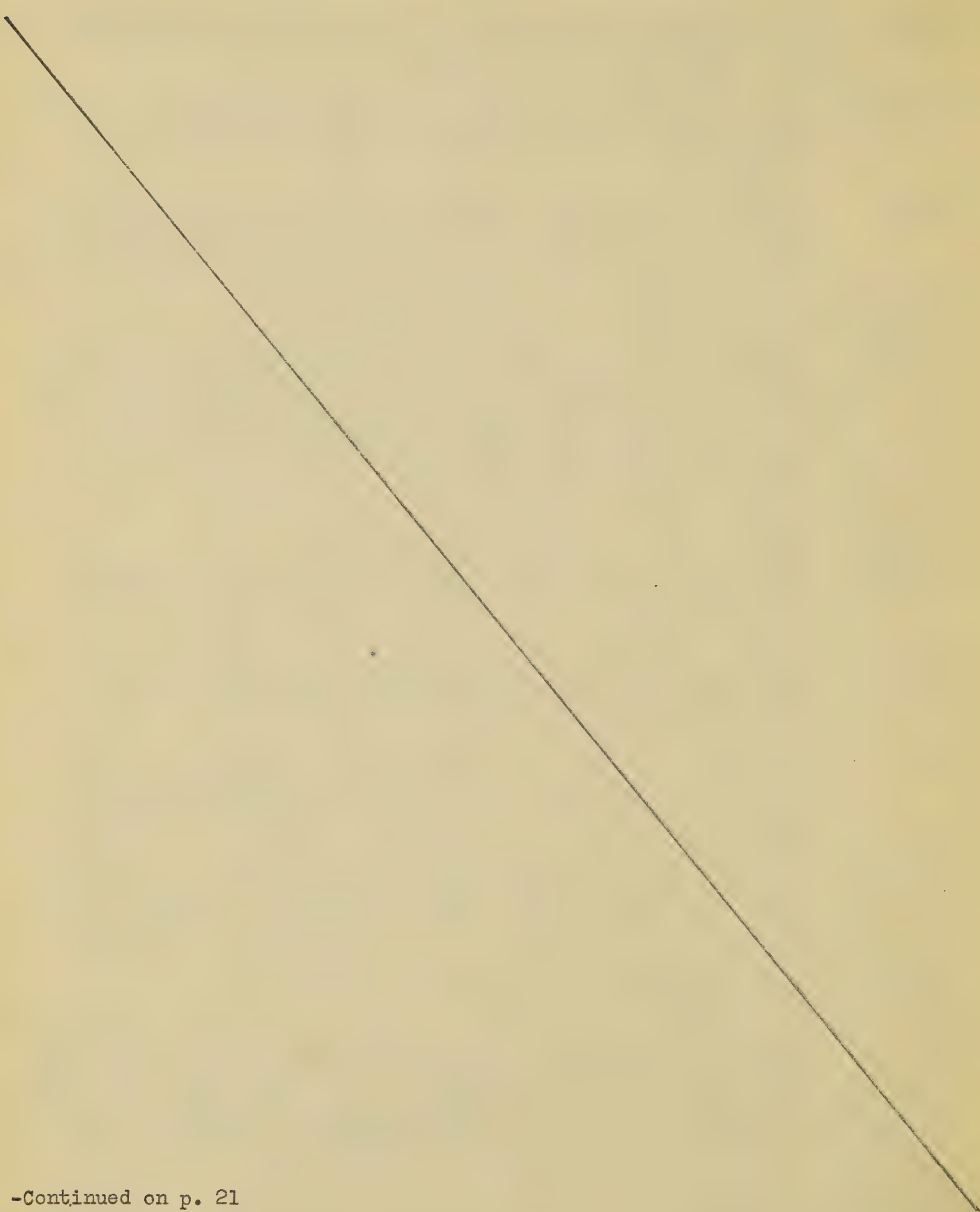
The chairman of the Conference appoints to each committee from among the regular members of the Conference four committeemen, one of whom he designates as chairman. Each committee shall have a minimum of one USDA, one TVA, and one land-grant college representative.

Cooper. Personally, the nearer this group comes, at this time, to appointing its committee members and to determining its own committee arrangements, the better. What you and the others are talking about,

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- Cooper. Dean Funchess, is one of the reasons I am anxious that this committee obtain their viewpoints as to what all this meant and their views as to what is desirable.
- Funchess. I started out with these two points. Did the old committees fail? And how sure are you that the new arrangements are going to be better?
- Cooper. Just to be fair to this committee, it doesn't seem to me that we should adopt the idea that there has been any comment that the old committees failed. That we picked up some place along the way.
- Davis. At the right time, I want to make a motion.
- Young. I don't recall, as a member of this committee, that the subject came up in our discussion. I agree with Dean Funchess that none of us in this room knows whether the new arrangement is going to be any better than the old one--or not until we try it out. I would like to ask another question: Does the Secretary of Agriculture have any control over TVA?
- Cooper. Do you really want an answer to that?
- Young. If he has control over TVA, then TVA is part of the Department of Agriculture. Then we are talking about two organizations rather than three.
- Cooper. Just to indicate one person's point of view: the Secretary of Agriculture has no control over the Tennessee Valley Authority, as I understand it.
- Bass. That's right. There is no congressional legislation as such; but there is the provision for the closest cooperation between the Department and TVA, as set up in the Memorandum of Understanding.
- Davis. But there is no authority implied or provided in the Memorandum of Understanding--a working relationship but not a legal authority.
- Cooper. Does that answer your question?
- Davis. We all realize that the Tennessee Valley Authority is a body corporate established by the Federal Government and set up for certain purposes on a regional basis, and it works not only with agriculture but with other divisions in the Federal Government and, of course, with State governments and State institutions.
- Cooper. Let's come back to the report of the committee.
- Davis. Mr. Chairman, if it is in order, I want to make this motion. I have listened to this discussion--and you will notice that I

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- Davis. didn't participate in it. I am pro and con about it. I want to move though, Mr. Chairman, that we postpone final action on this until the next meeting of this Valley-States Conference. Now that is the motion. In the discussion, I hope that each of us will do more study. I do not see need for immediate action on it. Unless there is some need--I am willing to yield to that--I think it would be well for us to turn it over in our minds a little further. Maybe the committee would like to reconsider it further in the light of this discussion. I am just suggesting that as a possibility.
- Young. I second that motion.
- Hutcheson. I want to make a motion that this committee on clarification and briefing be dismissed. That committee has done what it was authorized to do.
- Bass. It is really up to the Correlating Committee to analyze this committee's work.
- Cooper. Was P. O's (Director Davis') motion seconded?
- Young. I withdraw that second; I misunderstood the motion.
- Davis. The motion was that we postpone final action on this until the next meeting of the Valley-States Conference.
- Young. I second that part of the motion.
- Davis. The other was discussion.
- Funchess. Mr. Chairman, as I read that report--and I did read it--it seems to me that the burden of too many decisions is put on the Correlating Committee. I am not particularly proposing the passage of this motion. I have read this thing carefully, and I am not sure whether the new setup would be better; so if any of you here interpret my statement as opposing this, you are mistaken.
- Cooper. You recollect that all of this came out of the meeting in Asheville in which there was a question as to how all this should be handled. Consequently, there has been a presentation made and a recommendation to set up other committees.
- Funchess. Without further word, Mr. Chairman, I suggest that this motion be accepted and immediately adopted.
- Jones. I have a question, Mr. Chairman. The question is: If we adopt Mr. Davis' motion, where does that leave this matter of status quo, and what are we going to do regarding the carrying on of some of the work aimed at in these committee suggestions?
- Cooper. If I understand the motion that Director Davis made, it is to the effect that this matter be postponed until the next meeting of the Conference.

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Davis. Things will remain "as is" until then.

Cooper. Consequently, we will go on just as we have been going on up to the present time and carry on through that period, and then this matter will come up again at the next Conference. That is my understanding, in the event this motion is passed. If some other motion is passed, it will be some other way.

Jones. We will have no activity, no action.

Cooper. The postponement would mean, as I understand it, that we continue under our present system.

Hutcheson. If I recall correctly, the suggestion first came from Dr. Bayer at the Conference in Lexington that these old committees be disbanded and new committees set up. Now that was never done. These committees are still supposed to be active and will be active until they are dismissed and new committees appointed in their place. That was not one year ago; that was two years ago that this idea was first brought up. Then the Correlating Committee brought in this report to Asheville. The Conference appointed this committee to brief and clarify it and bring it back to this Conference. I think the point is whether we want to continue with these committees until another meeting or to appoint the new committees now.

Young. I'd like to make a statement in regard to P. O.'s (Director Davis') motion. As I understand our action at Asheville, the Correlating Committee presented to us a recommendation in regard to some proposed changes. We looked the recommendations over, and we couldn't agree as to what was meant. We had a great deal of discussion as to the meaning of those recommendations; so we were appointed a committee of three to clarify the meaning of those recommendations and to bring back to this Conference a report. Now we have made a report clarifying the meaning of those recommendations presented in Asheville. I don't believe we are in any position now to enter the next stage of approving or disapproving those recommendations presented by the Correlating Committee at Asheville. Now the next stage, it seems to me, is to study those recommendations over. If we have the time in this meeting to study those recommendations over, O. K., but I doubt that we have. It strikes me now that we need more time to study those recommendations over and bring our recommendations back later. It seems to me that none of us can escape the responsibility of making a careful study of those recommendations. I would not like to see that delegated to a small committee.

Cooper. Dr. Young, as I take it, you are proposing a step in addition to the work of your committee.

Young. No.

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Cooper. The others are doing it as individuals, but your committee is doing it as a committee.

Davis. Mr. Chairman, I would like to say in further discussion of the motion that I get from this discussion that under the proposal here, the Conference will abolish the standing committees that we now have and replace them with the new committees.

Clayton. If we adopt it.

Davis. Yes, if we adopt it. Is that spelled out in the language of it? It seems to me that it ought to start out by saying that we propose first to abolish all standing committees that now exist. That is one; two, "to substitute or establish in lieu thereof the following." Then state one, two, three. It will then be clear what we are doing. I don't believe there is any language in here, Dr. Young--

Clayton. It states here that the unfinished business of the present standing committees should be reassigned to the new committees.

Davis. If we are going to abolish them, let us start out with it and say that we are going to abolish them, so that everybody will understand it. I think this language, Mr. Chairman--I don't want to go into language--I do have to deal with language a good deal--but if we go into it, I do think it ought to be brought down into shorter sentences and smaller words that will be very specific.

Cooper. Turn over to the opening paragraph in which this committee starts its report.

Dean Cooper read the first paragraph of the committee's report, as follows (appendix, p. 65):

Over a year ago, the Correlating Committee was asked by the Valley Conference to explore the possibility of devising more effective participation of standing committees in the correlation process. Suggestions were advanced as to alternative ways of organizing a more satisfactory committee system. These were considered, along with others, in the preparation of the report presented to the Conference at its Asheville meeting. The special committee charged with the condensation and clarification of the original report believes that the recommendations for the reconstitution of committee structure and functions were valid. In submitting our revision to the Correlating Committee, we have, therefore, stressed the proposed changes in committee structure and assignments and kept to a minimum all material which was more or less generally descriptive of the over-all purposes and machinery of the correlation process.

Davis. That does mean, then, that you are proposing to abolish the old committees. It doesn't spell out what committees. For example, it doesn't mention the committee here that I am a member of. That does mean, then, to abolish those committees that would be in conflict with these recommendations.

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Hutcheson. All of those committees would be abolished.

Jones. It doesn't say that, does it?

Cooper. The report states specifically that "the special committee...believes that the recommendations for the reconstitution of committee structures and functions were valid."

Davis. I would like to spell that out in definite language. Somewhere along the line, it does abolish all the standing committees that now exist.

Schaub. I do not know whether you would call it criticism of our committees or not. Maybe so; but anyway a number of our committees were not functioning. We would come to meeting after meeting, and there would be no report. I did not originate the idea of any committees, but I think it was at the meeting a year ago--maybe a year and a half ago--that somebody did make a motion that brought about the report of the Correlating Committee six months ago, and that is how this Special Committee came to be set up. It seems to me it is just a question of deciding whether our original committees were functioning in line with their objectives or whether we were just going along and another type of committee, if set up, would not function better. Personally, I think they would function better than what we had before. I am going to offer a substitute motion that we approve the principle of this report. Then when we do that, I think we ought to discuss some of the details, like a provision for rotation of committee members. I can't see the argument for just waiting another year. I doubt if we will be in better shape to argue over this thing six months from now than we are at the present time; so I am going to offer a substitute motion that we approve this report in principle.

Davis. What do you mean "in principle"?

Schaub. I mean to approve these three committees as they are set up. Now, if you want some detail on the process of establishing the committees, that is a different matter.

Welch. May I ask a question? I would like to ask Dr. Young, who served on this committee, if he has any mental reservations in terms of the validity of this report.

Young. I am just expressing my own point of view. Our purpose was merely to clarify the recommendations made at Asheville. The committee did not intend to place its blessing upon those recommendations in any way, and I don't think we prepared them carefully enough to do so.

Hutcheson. That wasn't within the realm of this committee's activity. It was asked to do two things--brief it and clarify it. We were not asked to express our opinion.

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- Davis. Mr. Chairman, let me ask Dean Schaub a question. It seems to me we would have two parts: (1) that all present standing committees, other than the Correlating Committee, are hereby abolished; (2) that in lieu thereof, we establish the following committees. Is that what you are moving?
- Schaub. I am under the impression that the proposal of the committee at Asheville did abolish those old committees.
- Davis. If it did, let us put it down here in language so that we won't have to argue about it hereafter. If it is your motion to abolish all of them--
- Schaub. The main objective of my motion was to kill off this argument about technicalities.
- Davis. That was not a technicality, Dean. I would say if you want to abolish all committees, just start out with a few words, such as: "The present standing committees of the Conference are abolished."
- Funchess. May I add one more statement? We were on those committees and we failed. We didn't function. Now you are going to appoint us on another committee, and we will be a success. I'd like for someone to explain why, if we failed on the old committees, we may be expected to do better on the new committees.
- Cooper. You have a substitute motion by Dean Schaub. Will you state your motion again?
- Schaub. I will be glad to amplify it. My motion was that we adopt this report, and I think I ought to add onto it that if this motion prevails, these old committees are abolished and these new committees take their place.
- Cooper. Do you have a second who will go along with that?
- Young. I do.
- Cooper. The substitute motion before you has been seconded. State it again so that you will get it just the way you want it.
- Schaub. Mr. Chairman, I move that the report of the committee, proposing the appointing of three new committees from the Conference, be approved and that the old standing committees be abolished.
- Cooper. That is the motion and the second. It is up for discussion.
- Welch. I should like to know, Mr. Chairman, since I haven't had the benefit of the previous discussion, whether the committee that was appointed to do a job and brought in a report won't be appointed again. I should like to know that.

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Hutcheson. This committee was not to bring in a new report; it was to clarify an old report.

Welch. This committee has probably given more attention than most of us to the matters included in this proposal. I read this very, very hurriedly. During the discussion period here, I should like to hear a few comments from the committee that studied this carefully. I'd like to know what they think.

Hutcheson. This matter has been up before this Conference for over two years, and we have all had opportunities to think over and talk over it, if we were disposed to do so. I see no reason for thinking that we will discuss it any more in the next six months. Therefore, I am in favor of Dean Schaub's motion. I have been on one of the committees, and I know, personally, I have never done anything on it.

Welch. I judge from the last paragraph that the committee presented this in terms of a preliminary document. "Probably one of the first tasks of the new standing committees would be to spell out in greater detail their respective fields of responsibility." Now you are putting on these committees that are being constituted the responsibility of determining their policies and their objectives. "The unfinished business of existing committees should be reassigned to the new committee. Other adjustments may be necessary." Now I am trying to find out if you are considering this first step in adjustment here as you move into a different type of organization and approach.

Davis. Here in my interpretation. I want someone to check me if I am wrong. My interpretation is that this motion covers two things: first, it abolishes all standing committees and then, second, it approves three committees here with the definitions as herein stated for each committee. It does not obligate the committee to define its duties. It does adopt these definitions, one, two, three. Isn't that what we are doing? Isn't that what you want to do, Dean Schaub?

Schaub. Right.

Jones. It will then be up to the committees themselves to make further appointments.

Davis. With such changes as might be made by the Valley-States Conference from time to time. Now, Mr. Chairman, with the agreement of Dr. Young, I would not like to postpone action, as proposed in our motion. In view of this, we will withdraw that motion and propose this as the main motion: That (1) we will abolish existing committees and (2) we are approving this right here on page two within this report, not the report as a whole--one, two, and three, with those definitions. That is my understanding.

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- Cooper. Well, let's be sure that we all understand it.
- Jones. You are proposing, P. O. (Director Davis) that we adopt that part of the report under "Recommendation on Standing Committees" on page two.
- Davis. I do not know that you need that recommendation on Standing Committees. I just stated, first, that we would abolish the committees we have and, two, that we hereby establish the following committees for duties as described thereunder.
- Cooper. Does your substitute motion, Dean Schaub, include the ideas that have been expressed and also the adoption of the viewpoints expressed by the committee?
- Schaub. I am proposing that we follow the report with respect to setting up of these committees and that we abolish the old committees.
- Cooper. Adopt the three, with the functions indicated?
- Schaub. Yes.
- Davis. Question.

The motion was agreed to.

- Schaub. May I make another motion? I move that the chairman of the Conference appoint to each of these committees representatives from the Department, the TVA, and the colleges.
- Cooper. Don't you think that it would be well for the appointments to be made in some other way than by the chairman of the Conference?
- Schaub. That will be all right.
- Cooper. So far as I am concerned, I would be extremely glad if another way were found to carry it out than through the chairman. I have thought ever since our meeting at Asheville that it is not desirable to settle a lot of these functions and chores into the hands of the chairman, but to democratize the thing a little better. From the standpoint of organization, there is some advantage in the setting up of committees to arrange, insofar as possible, to handle it other than by working through a chairman.
- Hutcheson. I don't know whether we can get any better committees appointed by having a different arrangement.
- Davis. If there is any way to get a committee appointed, let us get it appointed. I want to move that the chairman proceed to appoint these committees in any manner he sees fit. If he wants to call for suggestions, and all that, he can do it.

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Hutcheson. All right. Let's make a motion to adopt that paragraph.

Davis. Mr. Chairman, let us read it out loud so that we will all know what we are doing.

Director Davis read from the report the paragraph under "Establishment of Standing Committees" (appendix, p. 67).

Davis. Now, Mr. Chairman, I would say on that "report annually" you can report at any meeting. We meet semiannually. Why restrict reports to one meeting a year? I just raise that question. In that case, that would make the annual October meeting the real meeting. What shall we do in April?

"The chairman of the Conference appoints to each committee from among the regular members of the Conference four committeemen. . . ." That's right. Let me ask you this. Who are the regular members of this Valley-States Conference? That question has been raised, and I can't answer it.

Clayton. They are the deans and directors of the land-grant institutions, five representatives of the U. S. Department of Agriculture, including the Director of Extension and the Chief of the Office of Experiment Stations, and five representatives of the TVA. Members of the Correlating Committee are also members of the Conference.

Cooper. That is set up under a Memorandum of Understanding.

Clayton. The Memorandum provides for the cooperation of those agencies, but the agencies are represented in this Conference on the basis of recommendations made by the Correlating Committee.

Davis. In the case of TVA and USDA, other than those who are made ex officio members of the committee, the Secretary will designate them. Is that correct?

Clayton. Do you mean members of the committees, or members of the Conference? As to the committees, the proposal here is that the chairman of a standing committee may--

Davis. No, my point is this: The Valley-States Conference, the regular members. Now, you say the regular members of the Valley-States Conference are five from the USDA, including two men who are ex officio; that is, the Director of Extension and the Director of the Office of Experiment Stations. Then who names the other three?

Clayton. The Secretary of Agriculture does, and he has named them.

Davis. That gives us how that is done. Now the TVA has four. Why just four for TVA but five for USDA?

Clayton. The TVA has named only four. I don't know why they shouldn't name another, if they choose to do so.

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- Davis. That would mean there isn't a definitely prescribed regulation.
- Clayton. It is prescribed as to the maximum of each, five members, yes, for the USDA and for the TVA, in addition to the representative of each of these agencies on the Correlating Committee.
- Davis. Five and four?
- Clayton. No, five for each.
- Davis. That gets who we are then. I wanted to bring that out: the deans and directors, five from USDA, and five from TVA; and, of course, the TVA names its own representatives.
- Clayton. Also the heads of these agencies, the presidents of the colleges in the Valley States, the Secretary of Agriculture, and the Chairman of the Board of TVA are honorary members of the Conference.
- Davis. That gets that. Now, Mr. Chairman, this paragraph on this committee is a pretty long one.
- Cooper. Which paragraph are you referring to?
- Davis. The paragraph that I just read, beginning at the bottom of page two. I would certainly divide that into two paragraphs. I would come down to "satisfactory study of assigned problems." I think the part about the secretary should be a separate paragraph: "The Executive Secretary of the Correlating Committee serves as the secretary," etc. Then I would suggest, Mr. Chairman, down there at the lower end, if you want to get all that on, that we say, "Standing Committees meet at least once each year at a time and place agreed upon by the committee and report"--I wouldn't say "annually"; I would say "report at the next meeting after the report is ready." Or I would say "report at regular meetings of the Valley-States Conference."
- Clayton. It should not be made mandatory for a committee to report at each semiannual meeting.
- Davis. The point I am making is this. Suppose a committee had a report to make this morning. They couldn't make it today; they would have to wait until October. I am just trying to see if we can agree on the language here to get some of this out. I would object to that language there: "report annually to the October meeting."
- Welch. While you are talking about that, is it in order, P. O. (Director Davis), to raise a question? Is it necessary to meet more than once a year?
- Davis. I would say that if regular meetings of the Conference were held once a month, they ought to be open for reports of these committees. That is the only point I am making. Then we can decide

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Davis. how frequently we want to meet.

Cooper. Change that to say "report at regular meetings of the Conference"?

Davis. That is right.

Cooper. Do I understand that you are making a motion to that effect?

Davis. I am not making a motion; I am seeing if we can agree on the language there. Dean Schaub has made a motion, and I am trying to do a little changing.

Cooper. The substitute motion has passed.

Davis. No, he has made a motion that we adopt this paragraph, and we are discussing it.

Cooper. The motion is to the effect that this paragraph, the paragraph beginning at the bottom of page two, entitled "Establishment of the Standing Committees," be adopted.

Funchess. It is adoption of the paragraph under "Establishment of the Standing Committees." That is what we are talking about. He has suggested that the language be changed to where a standing committee may report to any regular meeting of the Valley-States Conference.

Davis. That is the point I was insisting on; and I would suggest that in editing it you break that into two paragraphs. I second the motion, Mr. Chairman.

Cooper. You have heard the motion and the second.

Funchess. The bottom of that paragraph, with that minor change? Is that the intent of it? I want to raise a question, Mr. Chairman, about the language in the middle of that paragraph: "The Executive Secretary of the Correlating Committee serves as the secretary of each standing committee." That is right. "And will issue notices of the meetings as the chairman may direct." That is right. Now, I want to know this: "He shall be kept informed of the viewpoints of the Correlating Committee." I want to know why that is there.

Clayton. It doesn't need to be.

Funchess. If he is secretary, he ought to be informed of the viewpoints of the Correlating Committee.

Hutcheson. That is the idea in calling a man secretary. He is secretary of the Correlating Committee, and he should be informed of the viewpoints of the Correlating Committee.

Funchess. Do you want to adopt it that way? To me it seems a rather awkward way to do. I suggest that that part of the paragraph be deleted.

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- Davis. You suggest that we delete the words, "He shall be kept informed of the viewpoints of the Correlating Committee."
- Funchess. I don't believe that sort of thing should be spelled out in that detail. I don't see that, Mr. Chairman, at all.
- Davis. If it is agreeable to Dean Schaub, let us strike out that sentence, "He shall be" etc.
- Funchess. If I were chairman of that committee and had the official records taken from me and given to "Cap" Clayton, I might raise a fuss about it. Now, "Cap" Clayton disagrees. Why should the chairman--
- Clayton. As long as you strike out that sentence only, I am in complete accord.
- Davis. I would suggest, Mr. Chairman, that where it says "Standing committees meet," the word "shall" be used--Standing committees shall meet at least once each year." I think that is a little better language.
- Cooper. P. O. (Director Davis), do we understand all of this, beginning with the sentence, "He shall be kept informed" and so on, going down to the semicolon, be struck out? Is that what you are asking?
- Davis. No.
- Cooper. Upon request, he assists, he is custodian, he has the privilege of the floor on such committees, etc. Is that what you propose to strike out?
- Funchess. I am objecting to the procedure there--there is nothing personal about it.
- Clayton. Let me say a word. Take this sentence here: "He shall be kept informed of the viewpoints of the Correlating Committee." I agree with Dean Funchess that there is no reason for keeping that sentence. Now, let's take this matter of the relationship between these committees. The proposal, originally, that we have committees, stemmed from the fact that the Correlating Committee was set up with certain responsibilities under the Memorandum of Understanding but had no channels whatever through which to carry out these responsibilities. We met twice a year with this Conference. Naturally, questions arose on which that Correlating Committee needed to have advice, recommendations. The Conference provided a framework for discussion, but we had no organized channels through which we could go to get problems or proposals considered and recommendations developed. That was the thinking, so far as the Correlating Committee is concerned, originally, in getting these committees set up. Well, one of the criticisms

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Clayton. offered--and I think it is a perfectly valid one--was that by setting up these committees, instead of contributing to the correlation of our program, we were tending to segment it, to split it up among committees whose work is unrelated to each other. Now, it seems to the Correlating Committee that it is a proper function of the employee of that committee and of the cooperating agencies here, in his work with these committees and with the Correlating Committee, to facilitate the correlation of the work between these standing committees. That is one thing.

Another matter is the systematic handling of our records. Each of us as individuals is here for a time and then gone, but this cooperative enterprise is a continuing thing; the Conference is; the committee system doubtless will be. If we scatter our records, Dean, in the office files of a succession of chairmen--one chairman here, one chairman there--so far as the Correlating Committee is concerned, which is the responsible agency in this whole procedure, there is no place for our records to be brought together as a systematic whole, although we have an office established and maintained for that purpose. It seems logical and proper that our files, our records, go to the Correlating Committee because this is all part of the same system. So I think that this statement here that the Dean objected to originally, about the secretary's being kept informed of the views of the Correlating Committee, is wholly unnecessary because it is inevitable that the man who works on this job will have that information. Now, you strike out the rest of it, and it leads to confusion; so I think it is undesirable to do that.

Funchess. Let me make this clear, Mr. Clayton. Your point is O. K., but it doesn't belong here. By implication, if I worked for a committee, I wouldn't have any records. Your point I wouldn't deny. I wouldn't say that in the interests of the whole program the full records shouldn't be in your hands. I could have any part of the records I need?

Clayton. Of course.

Funchess. Then there is no point in putting that in there.

Clayton. There is a point in putting it in there, I am sorry to say, because exactly the opposite of this is what we have had. That is to say, we have had our records and committee files diffused among the different people who happened to be chairmen.

Funchess. I don't think if I couldn't have the records of my committee's activities that I would serve as chairman.

Cooper. That doesn't keep you from having the records, as I read this. You have the records, but he also has the records.

Clayton. Dean Cooper is chairman of the Correlating Committee, but it happens

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- Clayton. that for the sake of handling the business of the committee in an orderly way, we keep the records, correspondence, etc., in the office of the committee. He isn't cut off because we have the records. As a matter of fact, it facilitates his having access to the records. Say we have John Smith as chairman of one of these committees for a year. Then he resigns or takes a new job and someone else becomes chairman. That man has absolutely no access to the records of his committee whatsoever.
- Bass. Mr. Chairman, let me make a suggestion. Change "custodian of the official records" to "custodian of an official record" of these committees. Wouldn't that take care of it? That doesn't mean that the chairman shouldn't have an official copy and the secretary an official copy. Wouldn't that do it?
- Cooper. I think it would.
- Davis. Mr. Chairman, let me say this about it: "He shall" and then delete from there down to the next "shall" and pick up "upon request, assist in the correlation" etc., and then, in light of Dean Funchess' point there, "custodian of an official record of each standing committee, and shall have the privilege of the floor" and things like that. Get it on that basis and then it will be all right. There are certain duties of a secretary that are obvious. It does have this point that Mr. Clayton finds it very difficult to keep records systematically when there are several committees, a rotating committee, and all that. Therefore, I would be in favor of that language so changed.
- Cooper. Now you understand how that reads, and what has been proposed in the change.
- Hutcheson. That part of the paragraph, with the proposed change, would read:
- He shall, upon request, assist in the correlation of the work of the various standing committees; shall be the custodian of an official record of each standing committee; and shall have the privilege of the floor on such committees for the purpose of presenting matters relating to the performance of these functions.
- Standing committees shall meet at least once each year at a time and place agreed upon by the committee and report at regular meetings of the Valley-States Conference.
- Davis. Mr. Chairman, I would start another paragraph with "The Executive Secretary," for clarity.
- Cooper. The motion, as I understand it, is to adopt the paragraph under "Establishment of the Standing Committees," as amended.

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Young. Question.

The motion was agreed to.

Cooper. We still have the completion of the report of the Correlating Committee.

Cooperative Research (appendix, p. 58)

REA-TVA Relationships (appendix, p. 59)

USDA Estimates of Production Goals for Agriculture (appendix, p. 59)

Cooper. All of you remember that original comment and discussion that occurred over the establishment of production goals.

Funchess. Is that still in the mill, Mr. Chairman?

Cooper. I don't know whether it is still in the mill.

Funchess. I think it would be wise to let it drop out. If it happens, I want to be there.

Cooper. That is, if it drops out you want to be there, or if it doesn't drop out?

Funchess. If there is to be further discussion of production goals with the Department, I want to be there.

Meeting of Committee of Presidents Land-Grant Colleges
of the Valley States with TVA Board of Directors (appendix, p. 59)

Cooper. That is presented to you as a brief of what occurred at the presidents' conference. There was, as I recall, only one president absent. Frankly, I was surprised that the presidents turned out the way they did and at the interest that they had in the program, in developments related to the program, particularly in a possible conflict of functions, and, also, in the possibility of the contributions of the colleges to the solution of problems. I know that all of you know that President Graham was a member of that group--a very active member. He is now a senator. Are there any questions on this while it is in your mind, before we proceed?

Schaub. Are there any indications of developments there? Are they meeting with the Secretary?

Cooper. They have not met; at least, so far as I know. I asked President Donovan when I saw him three or four weeks ago, and he said that

COMMITTEE OF PRESIDENTS LAND-GRANT COLLEGES

- Cooper. he had been trying to get the presidents together but had not yet found a date that represented a satisfactory time for them.
- Jones. I would like to ask you to repeat that last sentence in the statement which you read.
- Cooper. "It was suggested by the chairman that the college presidents of the various States write the Secretary of Agriculture, requesting an intensification and expansion of the pilot farm classification and analysis study to include other counties in States other than North Carolina."
- You remember that there was an arrangement made whereby a study, or method, as Dean Schaub put it, of finding out whether we could work together, was set up in North Carolina, and that has been carried on now for approximately a year from the time it was started. They have suggested writing the Secretary.
- Schaub. You will get a progress report on that this afternoon.
- Cooper. It would be nice if we could get to it. Personally, I felt rather pleased that the presidents were willing to spend the day together to discuss a few of these questions which were arising.

For further discussion of this item, see p. 36.

Representation of Federal Agencies in Valley-States Conference

U. S. Department of Agriculture (appendix, p. 60; text, p. 28)

Tennessee Valley Authority (appendix, p. 60; text, p. 28)

State Contact Officers

(Appendix, p. 61)

Marketing of Farm Products

(Appendix, p. 61)

Summary of Experimental Data on Phosphate

(Appendix, p. 68; text, p. 37)

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Southern Educational Film Production Service

(Appendix, p. 61; text, p. 40)

Classification and Analysis of Farms in the Tennessee Valley

(Appendix, p. 62; text, p. 45)

Regular Meetings of the Correlating Committee

(Appendix, p. 62)

Dr. Harcourt A. Morgan

(Appendix, p. 62)

Cooper. Just as a matter of interest, because this deals with a man who is so close a friend to all of us, I am going to take the liberty of reading the letters and statement relating to the resolution adopted by the last Conference.

The letters and statement read by Dean Cooper appear in the appendix, p. 63.

Cooper. Gentlemen, as a matter of record, I believe I will file this with the secretary of the Conference where it will be available to all of us. Mr. Bass told me that Dr. Morgan was very appreciative of the resolution sent.

Next Meeting of Conference

(Appendix, p. 65)

Cooper. Gentlemen, I present the report to you. What will you do with it?

Davis. Mr. Chairman, there is one question I would like to ask, and that is the meeting with the head of the Soil Conservation Service. That is something that we are proposing to do but haven't done. Is that right?

Cooper. That wasn't done that I know of.

For previous discussion of this question, see p. 34.

Davis. I move the approval of the report.

Cooper. The motion has been to approve, and that includes the date of the next meeting.

The motion was agreed to.

CROP RESPONSE TO PHOSPHATE FERTILIZER

SUMMARY OF DATA ON CROP RESPONSE TO PHOSPHATE
FERTILIZER IN THE VALLEY STATES: PROGRESS REPORT

(Appendix, p. 68)

Cooper. Our next item is a summary of data on crop response to phosphate fertilizer in the Valley by Dr. Rogers.

DISCUSSION

Rogers. This project was suggested by the Research Committee of this Conference about 1945. At that time, the committee was composed of Directors Funchess, Baver, and Stuckey. The Valley experiment stations had been conducting research in fertilizer use for some thirty or forty years prior to TVA, which is an agency that is spending millions of dollars in research in fertilizer processing. This information was needed as a guide to the research program at the Shoals.

One other obvious use of such a summary would be as an aid in planning, at both State and regional levels, future research projects in fertilizer use. Furthermore, it should enable us to evaluate the present recommendations of the various States as to fertilizers for different crops in the test-demonstration program. This would, no doubt, point up some of the discrepancies with which we are all more or less familiar concerning fertilizer recommendations for neighboring States. I might mention one or two such cases--the position of Kentucky and Tennessee with reference to recommendations on rock phosphate. An even more controversial issue is the question of whether we should recommend nitrogen on permanent pastures. The recommendation of Georgia, for instance, that we should use nitrogen on permanent pastures is in contrast to North Carolina and Alabama. It is our hope that some of these discrepancies can be resolved in the light of adequate factual information.

We had some difficulties in making a study of this kind. The committee may have underestimated the amount of data available in the States, published and unpublished, on this subject. So far as I know, there has been no similar study made in this country that we could use as a guide. We had to develop techniques and types of summaries. I consider this project as really an experiment in research interpretation. The British scientists, early in World War II, conducted a somewhat similar study, going back to 1900 for the data, attempting to pull together findings on fertilizer use both in the Isles and in parts of Europe as a basis for a fertilizer-rationing policy. Our study, obviously, had somewhat different objectives.

Soon after I joined TVA, early in 1947, I spent about six months in Auburn, working on a summary of the Alabama data. This rather voluminous report came out last May. We used suggestions from all

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Rogers. of the Valley experiment stations, and I spent a couple of days in Ames, Iowa, last September discussing the techniques that we used in the Alabama study with Doctor Pierre and his staff, merely attempting to see if our procedures were sound. The States are not all making exactly the same type of summary.

At present, the Alabama and the Virginia reports have been completed. Charlie Rich did a very good job in summarizing the Virginia data, with a report which was completed last September. In Kentucky, Georgia, and Tennessee, most of the work has been completed on the basic tabulations, and they are now attempting to summarize the results. Without going too much into the details of the techniques used, I would like to show you some of the highlights of the results taken from the Alabama and the Virginia summaries.

A digest of the Alabama summary, which was distributed to members of the Conference, appears in the appendix, p. 68. The presentation at the Conference included both Alabama and Virginia data, and comparisons were made between the two States on certain points of interest. Since the data were presented on slides, the explanatory remarks are not included in the minutes. The following questions and discussions developed during the presentation of the report.

Olson. How about peanuts? Would you get a decrease from peanuts?

Rogers. The response of peanuts to phosphate was fairly good. The average, as I recall, was between 200 and 300 pounds of nuts per acre. There was considerable variation, however, in response by peanuts in different tests.

Young. May I ask a question? Including the other costs? (With reference to pounds of seed cotton produced per pound of P_2O_5 applied and the economics of using more phosphate on cotton.)

Rogers. No, not in this calculation. Simply basing it on these figures, we got one pound of seed cotton increase per pound of P_2O_5 for rates of phosphate ranging up to 192 pounds of P_2O_5 per acre. I think what is happening in some sections of the State indicates that farmers are increasing rates of application.

Funchess. All these were comparisons?

Rogers. That is right. They were studies made in tests of complete fertilizers, where we had nitrogen, lime, and potash added in most cases. In a few cases no phosphate is compared with phosphate alone, without additional elements. However, in every case where we had a comparison of LNK vs LNPK, we used that comparison. These are State averages that we have talked about thus far.

Funchess. I should like to ask if there were wide differences in response from one soil type to the other.

CROP RESPONSE TO PHOSPHATE FERTILIZER

- Rogers. In general, we are of the opinion that we would not expect a good correlation between phosphate response and soil type for the simple reason that previous fertilizer history will have more effect upon the response you get than the inherent properties of the soil itself. However, we do have the results of several hundred tests on each of several soil groups which we will look at this afternoon.
- Davis. Have you come to any conclusion as to what increases farmers should generally make in the use of phosphate?
- Rogers. We haven't examined the data from that point of view. We have compared the average yields of the different crops in the State with the average yields of our experiment stations and with yields in cooperative-farmer tests to see whether we are operating on about the same level of fertility as the farmer. Obviously, there are a number of factors involved in such comparisons.
- Cooper. How long were the tests carried on using the rock phosphate?
- Rogers. This, as you recognize, is an average of all the tests, which of course include some long-term experiments and some short-term experiments; but the point which you raised is important in evaluating this material.
- Davis. What did you say was the principal value of this type of summary?
- Rogers. As I look at these results, their chief value is going to be in their contribution to our knowledge of general principles of soil fertility in this whole complex field of soil fertilizer-plant relationships.
- Funchess. I want to make this one statement. That is a splendid picture in general. I want to make this one statement because it is something we have run into recently. Your rock phosphate figure there doesn't look terribly bad. Maybe you wouldn't recommend it. If you attempt to use rock phosphate on areas where the phosphate requirement is very high, you get an extremely different picture. In the Alabama black belt, for example, colloidal phosphate, with which you are familiar, has been very vigorously pushed in recent years. Our Alabama soils which have not been phosphated are extremely deficient. The push has been so great we have inaugurated a new set of tests to get a line on these so-called insoluble phosphates. But on these soils that are highly deficient, there was practically no crop produced with rock phosphate or colloidal. This is simply another way of saying what Dr. Rogers has very, very well said, that soil type isn't as important as the past history of the land. All of you men with experiment stations had better watch your step. If you put out these tests on lands that have considerable phosphate reserves from previous treatment, you get a picture wholly different from tests on soils which have not received previous phosphate fertilizer.

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LUNCHEON

The Conference recessed for lunch at 12 noon. At the luncheon session, Mr. Edward A. O'Neal, Florence, Alabama, retired president of the American Farm Bureau Federation, addressed the Conference.

The Conference reconvened at 2:00 p.m.

Since Dean Cooper was unable to attend the afternoon session of the Conference, Director I. O. Schaub presided.

THE PROPOSED VALLEY FILM ON LAND USE

Schaub. P. O. (Director Davis), you are next.

DISCUSSION

Davis. I will be brief here, but I could make it long. What I have here came to me as a suggestion from Director Brown, who isn't here, but Mr. Skinner is here. Director Brown opens this by saying that there is a great deal of talk about regional development. Unquestionably, the region has made some phenomenal advances. However, if he were required to make a statement as to just what the Tennessee Valley program is and what our responsibilities to it are, I am afraid my personal opinion would be that there is no clear statement and understanding of that program. Now he goes on to discuss that, and then states that about seven years ago, this Southern Educational Film Production Service, as I understand it, got off on the wrong foot and they pulled it back in line, and it is in good shape now so far as that goes. Then he makes the suggestion that all the extension services in the several Tennessee Valley States pool some funds and ability and produce a moving picture which will make a Valley-wide view of at least one phase of a regional program. In our thinking so far, we believe the problem of land use is one common to us all and one presenting opportunities for joint planning on several basic problems. I believe that the development of such a picture could be done by a committee composed of one or two representatives of each of the organizations participating. Each extension service might want to have the supervisor of test-demonstration work and the other person--an agronomist or farm-management specialist, or possibly administrator--represented during the original planning or final editing of such a picture. No doubt a much smaller committee could advise with the film service during the period of actual production. He suggests that the original plan agreed upon should provide for a minimum number of prints of the film for each participating agency. Then he goes on to say that the matter was discussed with Mr. Landess and others and that they rather liked the idea. Next he says: "I believe that the production of a Valley-wide moving picture dealing with the fundamental agricultural problems would provide the beginning for a real, genuine, regional program for agriculture, and I am sure such an assignment for the Southern Film Production Service would give it a new concept of its possibilities as an educational source."

FILM PRODUCTION SERVICE

Davis. Now, that is his suggestion as I have just read it. Is there any discussion on it?

If not, I am going to move on, Dean, and give you Director Brown's further thinking on how this might be worked out--that is, if the States want to do it. As he sees it, we would need about a thousand dollars per year for two years plus another thousand dollars for the film which will be needed. In other words, a total of three thousand dollars per State over a period of two years. I believe that is right. Mr. White, you had a discussion about it, and I had your letter. Isn't that right?

White. Yes.

Davis. What I am asking now is what you would like to do about it. If we developed this idea, it would mean that we would have to create a committee somewhat as suggested here by Director Brown, and, also, we would have to include provision for it, of course, in our prospective budgets. I don't have any motion to make on it, but I did want to present the matter here. Maybe Mr. White would like to say something on it. I have had some correspondence from him.

White. P. O. (Director Davis) checked along the line I was trying to suggest this morning. It would form a sort of springboard from which to do a little experimental work in actual regional development. We would try to get a perspective of the broad regional problems and program. There are, of course, different problems. These different problems can be merged, we hope, into a unity of educational material, where you don't have to take a specific aspect, and ask a single State to carry the total burden, but merely the collaboration and integration of the potential of these States, perhaps, into a more elaborate and more constructive picture than any one State would be willing to undertake as an experiment.

Schaub. I would like to ask whom you have in mind to show this picture.

Jones. Anybody who would want to see it. There would be a lot of audiences who would want to see it.

White. It would not be confined to agricultural audiences but would be of interest to a wide range of private and public agencies and groups that are concerned with rural people.

Jones. I'd like to ask another question. We know we spent about eighteen thousand dollars on a cotton picture. How many of you are showing that picture now, two years after it was made?

Davis. It may be that that film was not what it should have been. I do know, Mr. Chairman, that there is need for a picture of this kind, basing it upon use of land. I can make use of one late this month to a group of very important businessmen, like the president of

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- Davis. Sears, Roebuck, the president of Metropolitan Life, and people like that. They are asking about it.
- Schaub. This crossed my mind. For propaganda and for general interest, a movie is all right, but from the standpoint of instruction, and for direct service to the producer, a picture that is merely entertaining will lose its value. Personally, I do not want to put my money in that kit.
- Davis. Of course, you are challenging the value of movies of any kind.
- Schaub. No. For propaganda purposes and general interest, all right, but from the standpoint of detailed instruction, I don't think they amount to much.
- Davis. Of course, that brings up to another subject. We feel that movies of the right kind have value. We are getting more and more call for movies. We could spend all afternoon on their merits and demerits for extension work. Our thinking is, based on our experience so far, that they have a place. Here is a letter from Director Dietrick that Director Hutcheson brought down this morning. He says that Virginia would look with favor upon the production of such a film and share a portion of its expense. He mentions that since it goes into more than one fiscal year, whatever he did, of course, would be determined by what their appropriations are by the legislature. Then he asks this question, which I want to read: "Has any consideration been given to the possibility of dividing the cost depending upon the area of each State within the TVA area rather than on a flat State-by-State basis?"
- Funchess. Mr. Chairman, as I understand P. O. (Director Davis), the extension service agrees to assume responsibility for this.
- Davis. The State said that they did not want to take it over. I am not sure--
- Funchess. Well, I just wanted to ask a question to see if I am about to be committed.
- Davis. I think this is an extension service matter. It would be my thinking, but you in other States might think differently.
- Funchess. Where would you get the major part of your pictures?
- Davis. The idea he had here was to make it the type of picture that would be good for use in any part of the United States.
- Funchess. Where would the scenes be laid?
- Davis. Well, Dean, I hadn't thought that far. Land use is what he suggested here. Therefore, it would have to be filmed right out there on the farms. Where and how many farms would have to be something for the committee to decide. His suggestion, and we have talked about

FILM PRODUCTION SERVICE

- Davis. it a good deal, is that a committee of the proper people from each State get together on it and boil it down and write the scenario and then prepare for the filming. This Southern Film Service is still available right now, isn't it?
- Skinner. Yes. It is at Athens, Georgia.
- Davis. Have I given a clear picture of what we have in mind?
- Funchess. If this film starts here, who will sponsor it?
- Davis. It might be, Dean, just the land-grant colleges in the TVA area. As a matter of fact, I think the colleges ought more and more to assume responsibility for further and more effectively depicting this cooperative program and not put the responsibility on TVA. Very likely the decision would be that it be sponsored by the land-grant colleges in the Tennessee Valley. Very likely that would be the decision. Is that right, L. I. (Director Jones)?
- Jones. Yes.
- Funchess. I think that Dean Schaub's statement is eminently correct. I doubt that films are effective for purposes of instruction and to leave a permanent effect. I doubt that we'd be justified to put out considerable money and time to produce a picture and show it in 125 or 150 places in the State, in terms of its value for instruction and its permanent effects.
- Davis. Of course, you could say that that is true of a lot of educational methods. You have heard the idea, gentlemen, now what is the wish of the group? By the way, we are an abolished committee now, aren't we?
- Young. May I ask a couple of questions? Is this a picture of land use?
- Davis. On the use of land, I'd put it.
- Young. Is it a moving picture, or stationary?
- Davis. Movies.
- Young. Of what?
- Davis. Of course, the idea hasn't been developed. We may think of something else, if we don't like this idea. Walter (Director Brown) gives as his thinking that we have a regional program here, but he says that he feels if he were asked to state explicitly what the regional program is, he might stutter. He wants to get on something that will depict one phase of the regional program, and he suggests this. Now, we could suggest something else.
- Young. I can think of a different type of educational program--a kind of

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- Young. motion study that could be very valuable. But when it comes out here to a program on land use, I can't see land use as a moving picture.
- Davis. Think of something else then--something that will help the basic, regional program. What else can we suggest?
- Olson. I don't think there is any question about the value of motion pictures in an educational job. Of course, it isn't a detailed teaching job, but there is no question about the value of motion pictures. It is just a question of whether this group wants to go together on it.
- Davis. I tried to state one phase of the regional idea. You may or may not agree. Now, if you do, all right, or if you don't, but it is up to you to decide. The suggestion came from Walter Brown.
- Welch. I think the question comes up to you of whether the effort put out in the several Valley States has a story back of it. Has the program told a story? Has anybody benefited on the land from the use of this fertilizer? Has it put grass on the land? Has it put any more food in the mouths of children? Here is a development program. What shall we do with it? You can print volumes of literature, I don't care how many tons of it, but people will come out to see a moving picture and throw the bulletins in the corner as they go out the door.
- Davis. Who would be in favor of using a proposal like this?
- McReynolds. This certainly is the ideal way of working together on the regional aspects of this program and all that sort of thing. You said that you had written the various directors. I don't know whether McLeod's letter came before he left or not, but we had no discussion on the matter.
- Davis. I think you will find it in his files there.
- Clayton. Director, will you state for the record the States that indicated interest?
- Davis. Mississippi, Virginia, Georgia, and Alabama.
- Olson. P. O. (Director Davis), I guess we aren't going to get down to the question of the budget. You got some figures down here, and we wanted to talk it over a little bit, but I don't believe we are going to get to that point.
- Davis. I'd like to restudy the budget and then consult with a few other people and then let me write each director this information about it. They might want to reconsider it.
- Schaub. I would like to say that I don't want to be against the group. Dick Reynolds spent over fifty thousand dollars with us making movies.

FARM CLASSIFICATION AND ANALYSIS

Schaub. I don't think they had much success. We put a thousand dollars into the cotton picture, and I am sure if I had put the thousand into cotton, that would have done more good than that did. On the other hand, we still believe in movies and think we got one on corn up there that is good. But that within itself simply arouses interest. It has got to be followed up. Until we get something more concrete than you have at the present time, I don't want to put any money in it.

Davis. That almost amounts to going over until the October meeting, doesn't it?

Schaub. No, I'll get a few of the boys together and discuss it. You will have to give me a whole lot more argument. We don't have any money over there.

CLASSIFICATION AND ANALYSIS
OF FARMS: MISSISSIPPI

DISCUSSION

Schaub. The time remaining is short. I'm afraid we can't reach all items on this program. How does the group wish to proceed?

Welch. Mr. Chairman, Mr. Johnson and Mr. Atkins have made a special trip here to give us information on progress of the work in North Carolina, in which we are all interested. Director Jones and I can easily report at another time. I suggest that we defer the Mississippi report and hear from Mr. Johnson and Mr. Atkins.

Schaub. If that is your wish, we will defer the Mississippi report until another time.

VALLEY FARM CLASSIFICATION AND
ANALYSIS STUDY: NORTH CAROLINA

(Appendix, pp. 73 and 76)

DISCUSSION

Schaub. Let's go to the next item, the Valley farm classification and analysis study in Haywood County, North Carolina. Mr. Johnson and Mr. Atkins are here to give us a progress report.

Johnson. I would just like to say that Sam Atkins and I would be very glad to divide the remaining time with Dr. Welch. We are highly confident that there is some very valuable research going on over there.

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Johnson. I hate awfully to see you lose a place on the program.

Welch. It is all right, Neal (Mr. Johnson). The only thing is that I want the records to show that we were prepared to make two good speeches.

Mr. Johnson's statement appears in the appendix, p. 73.

Schaub. Was forestry in there?

Johnson. Yes. I was going to mention that at our Asheville meeting we got Mr. Kilbourne's expression on the need for forestry investigations--farm forestry--particularly in Haywood County and counties like it in the TVA area. That very definitely takes part in the picture. At this point, I'll ask Sam Atkins to give you some more detailed information on the actual field work.

Mr. Atkins' statement appears in the appendix, p. 76.

Hutcheson. Is it true that land prices are very high in that area? The reason I am asking is that I have visited down there, and I want to know what they are doing in North Carolina in pricing.

Atkins. That puts me on the spot. Land is high priced. We try to get some honest-to-goodness evaluation of that. You are thinking of \$1000-an-acre land, aren't you?

Hutcheson. Even \$150,000.

Atkins. We didn't find but one or two men who admitted their land was worth much less than \$100 an acre. I would say that the average sales value of the average land through there is about \$200 to \$300 an acre.

Hutcheson. Can they afford to farm that price land?

Atkins. Now, that is another thing. Quite a few farmers have said that they would give a thousand dollars an acre for ten adjoining acres.

Hutcheson. I have had a man ask me whether he could sell his farm at a thousand dollars an acre. I told him that unless the buyer wishes to farm for pleasure and to live there, no.

Atkins. They value that, Dean, very highly as a place to live. It is surprising how some of those fellows have carried phosphate and lime up on the hill. There certainly are possibilities, and if any of you folks have agricultural engineers to help them solve the problem of easily and economically getting lime, particularly up on those hillsides, it would certainly help those farmers in that whole mountain area.

Schaub. The greatest problem we have is how we are going to get lime up on those steep slopes.

FARM CLASSIFICATION AND ANALYSIS

- Clayton. I understand that some of the agricultural engineers of TVA are working on it.
- Atkins. At the present time, they carry 300 or 400 pounds on a sled.
- Schaub. Mr. Johnson asked us for specific questions on this work. I am sure he would like to have your suggestions and your reactions.
- Young. What is the purpose of this study?
- Johnson. Dean Schaub and Mr. Clayton can give you the background on that.
- Schaub. I might say this that it grew out of this committee on relationships with SCS. After we had had four or five meetings, the suggestion was made that the only way we could make progress was to go out here and analyze a farm and develop a method to make a farm plan that would cut clear across the whole operations, not only in erosion prevention, but also on the economic side.
- Young. Farm management?
- Schaub. Yes, farm management. It covered everything--the whole thing. The result of this suggestion was to agree to try it out on an experimental basis and get these various agency representatives to come together and actually go out and study farms and make recommendations. It is now hoped that out of that would come a fairly definite idea as to how we could develop and put into application a farm plan. If you think that this thing is going to develop to the point where we will have a rather united approach to the farm plan, then I think we ought to take whatever time is necessary. Of course, I am in hopes that as a result of this, we will have some rather definite schedules to be followed, in Haywood County, at least, and move more rapidly in the development of the farm plan.
- Johnson. That is right. I would like to say one thing on the research that we are developing on these different groups of farms. I think it would be a sad mistake if we assume that the research results we get are a definite prescription that can be applied blindly to farms of Haywood County. Here a farmer comes in, and you identify him as one of the groups you have studied and say: "All right. Here is your prescription." I doubt very much if any planning work can go on in that way that will meet the test. In spite of our attempts to get groups together that have common problems in that vicinity, certainly there is a great variation within the group.
- Schaub. Do you think though that you have come to a good technique of developing a farm plan? Certainly you can't develop a plan that is going to cover every farm, but in the technique of the development of a plan, I was in hopes you would be able to say that this kind of approach will cut all the way across and take into account

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- Schaub. all the factors that need to be considered in the development of a farm plan.
- Young. A plan for individual farmers?
- Funchess. Of course, your individual farmers are the ones who are going to make the decision, and it would be interesting to see what the reaction of those farmers is.
- Hutcheson. You mean the technique of helping a farmer develop his farm?
- Funchess. That's right.
- Johnson. It has been suggested that we try it out in maybe three parts of the Tennessee Valley--Jefferson County, Tennessee, and Graves County, Kentucky, representing different situations in the mountain areas.
- Schaub. It brings in soil conservation and so on; it brings in the economic side. In other words, all the things a farmer needs to consider in planning his farm. Certainly AAA is going out there, I am afraid, with not too much objective to help that fellow earn a little money. Farm Security--they, also, would like to have something of this kind. I am sure they would. Extension goes out, and a lot of people go out to help plan these farms with little thought to objective. The thought was if we could develop a procedure here that would cut across all of these--if you get that procedure--it should not take five men to go out and plan a farm. One man can do it.
- Welch. I wonder if you can work out a conservation program apart from market opportunities in that area. I believe Charlie Kellogg said that on some of the farms up there, you never really got soil conservation without tobacco on the farms. I do not know whether PMA would ever think of tobacco as being a soil conserving crop. Tobacco made possible adjustments in terms of the total farm organization and operation that did bring good conservation practices, because you had an intensive crop that provided at least a minimum amount of income. We found in our studies in Mississippi--I think you will find the implication, if you didn't state it directly, Mr. Johnson, in your classification--that the more rugged, eroded soils are nearly always found in small operating units. As you go down into the lower, damper soils, you begin to find larger units. Now, when you get on the small unit area with poor soil, erosion is already pretty heavy. Can we find, in terms of a good conservation, a soil program for that individual farm without a pretty good knowledge of all the factors involved?
- Schaub. I can give you one extreme illustration. I found in Germany a man had two acres divided into 146 plats.
- Bass. A question has been raised about initiating the work in additional Valley counties.

FARM CLASSIFICATION AND ANALYSIS

Johnson. I believe that the report of the technical committee suggests work be done in one or more of the counties. It might mean tests in more than one spot. Certainly the mountain areas are quite different than Jefferson County, Tennessee, or Graves County, Kentucky. So far as the technique of applying the results of this cooperative program, it seems to me that what might be best in one county could be tested in more than one; and I still see a gap in our procedure here. One of these days Sam (Mr. Atkins) is going to come up with a report of research results. There is a little gap in our thinking of how to implement that research and go ahead with the application of it. I am sure, Mr. Bass, that if this succeeds, there are phases of this work which will be valuable for the TVA group to add to its program in every TVA county. Yet how far it is feasible to go in the experiment (or research) approach--where that stops and one technique is developed, and what happens in carrying it on from there--deserves consideration. Doing a job of this nature on 125 TVA counties is a real task.

Schaub. You will be able to move much more rapidly than was your experience here?

Johnson. Yes.

Gaston. Gentlemen, please do not get me wrong in what I am going to say, because I think the ideal technique that would be the simplest possible to help the farmers in the best possible way is something we are all striving for. But I don't think we should forget that in the past three decades, at least, there had been, already, a good many efforts in that direction. I took part in some of those efforts myself, before I went to Washington. One of them was tested in Georgia, I think it was, for two years. I forget the period, but it was either the late 1920's or early 1930's.

In the last fifteen years, there have been several concentrated different studies on this problem technique. I know of at least three that were participated in by Departmental people in Washington and at least one of them by people from the State institutions; maybe two of them. I don't think we are going to reach that ideal very fast. My plea is, among other things, let's don't forget that there have been some efforts made in the past. The problem isn't a new one; at least, it isn't a new one for the past sixteen years.

Now, something that was said, among other comments, seems to misconstrue this idea of intensity. I don't think that in all instances the land that is most intensively used is the land that is in tobacco, or cotton, or in corn-belt corn, or in North Carolina corn fields. I have seen a good many dairy farms, as an illustration of what I am trying to say, where I am firmly convinced the land is much more intensively used than it would be if planted in either tobacco or cotton; likewise with poultry; likewise with commercial vegetables. I am not so sure but what 50 or 75 years from

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- Gaston. now, if I understand the concept for some of the forestry development work, particularly here in the South, we are going to find a lot of land being intensively used for growing trees; so my plea on that is let's watch our concept of intensity, and don't think it must always mean cotton or tobacco or corn.
- Welch. I suggest that, especially with reference to trees, greater intensity is a matter of time, but right now, or five years hence, would you get more off that land out of timber than you would get out of cotton or pasture? Now, you can transfer all of the people from the Southeast to the Midwest tomorrow, and they would have more land resources up there with the people that are on the land than they have down here. Now these people have got to live between now and the time that you get that forestry land up to that degree of intensity; so it isn't a matter of intensity in the long run, but a matter of what I can squeeze out of it today because of the urgency. I think that should be taken into consideration in terms of your conservation program.
- Gaston. Of course, naturally, I would agree. If I understand what the foresters say correctly, we can start on unproductive land here in the South and then in ten or twenty-five years, we will get that land to producing an annual crop of timber on a profitable basis. We also have in the South, thank goodness, a lot of land where trees are now.
- Johnson. I hope that we can have a more specific report next time.
- Schaub. I would very much like to see this work done now because it looks like in another two years you might have your cotton under acreage control, and what are the farmers going to do? You may run into that when you get down to the Tennessee county or the Kentucky county. That is going to be serious. Gentlemen, are there further questions?
- Funchess. I got the impression from these gentlemen who are giving the progress reports that we are getting to the point where we might get something we can put our fingers on.
- Schaub. Now they are going out to study ten or eleven farms in detail.
- Johnson. The general feeling was that the first survey of 160 farms should be followed up by a lot more intensive work on selected farms in order to get a more detailed picture of problems and opportunities of each group.
- Welch. Does the classification include part-time farmers, or are they all full-time farmers?
- Atkins. In one group, there are some part-time farmers.
- Jones. Dean, I think this is a very fine report. I think you have given us a lot to think about.

I. O. SCHAUB

OTHER BUSINESS

Jones. We would like to have a word or two, I think, from Dean Schaub, who has just returned from Germany.

Schaub. I got more ideas over there that can apply over here than I left over there. This is the general situation. Germany, itself, is making rapid recovery. They, fortunately, had the best crop year last year that they have had in a long time. On production per unit of land, they are way ahead of us. The average yield of potatoes last year was about 400 bushels, but their production per unit of worker is miserably low, because, through over two or three hundred years of subdivision, practically all of their farms are broken down into strips or little plats.

In Hesse--that is where I was most of the time--over half of their farms are less than ten acres. They would probably average that on a breakdown where they are divided into at least ten strips or plats. I saw one instance where two acres were divided into 146. Under those circumstances, mechanization is simply out of the question. The Military Government is trying to work some kind of scheme to get more of a consolidation. The Germans themselves have worked on it for a long, long time. The German is "sot" in his ways. I have talked with a good many about it. Each one says, "My land is better than the land on the strip right by me," or "His is far away from the home." The Germans say that the only way in the world you will get consolidation is by compulsion.

One of the greatest surprises that I had--I had seen our propaganda, our pictures of starvation--was that I didn't see any more starvation in Germany than you see out here in the streets of Birmingham. That was not true a year ago. There isn't any doubt but what there was starvation in Germany a year ago. This was a good crop year, and Germany, as it is now constituted, is producing about fifty percent of its food needs and probably will produce little more than about sixty percent; so they have to get food from outside. With the good crop year that they had, plus eight hundred million dollars' worth of food and feed that was shipped in, they are now living pretty well.

From what the people who have been over in England tell me, the average German is living better now than the average Britisher. The Britisher is limited to one egg a week, and other things in proportion. In Germany, potatoes are not rationed, bread is not rationed. Meat has been rationed, but by the time I left over there, meat was in the show windows. They can get meat. Fat foods are extremely short. Coffee is short. It is even hard to find coffee in the black market. You can find almost anything else in the black market. The best piece of meat I had while I was in Germany was in a German beer hall which was operating in the black market, but it was a real good piece of meat. But they

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Schaub. didn't have any coffee in that place. They are not getting as much meat, of course, as they would like, but they are getting enough so that they are able to work.

Two things have helped them most: first, the stabilization of currency, and that took place July 1 last year; second, the Marshall Plan, which brought in the food. Up until stabilization of currency, the farmer didn't want to sell any of his products to the people in the city for currency because he knew that currency wasn't any good; so that is where your black market developed in cigarettes. He liked to smoke, and if you went out with cigarettes, you could get food out in the country; so cigarettes got to be very important. When I left over there, prices of cigarettes were going down, and I got a letter the other day, written about the middle of March, which said that the level of prices of American cigarettes now is about the same as the level of prices of German cigarettes.

They will always have to import about fifty percent of their food. The situation, as I see it, comes down to about this. We can pull out, and they will go hungry, especially they will go hungry in the cities, and they will join Russia in twelve months' time. That is one alternative. The second is we can continue to give food to them as we are doing. So far as we are concerned, we are giving it, but so far as they are concerned, they are having to buy it from the channels at hand. The income from it goes into an account reallocated for the rehabilitation of Germany. Hence, whether the people of the United States will be willing to pour in half a billion dollars' worth of stuff a year remains to be seen. The third alternative is that some means must be worked out to get an interchange of goods-- industrial goods--so that they in turn may be able to buy food. They can't produce more than half of it, or maybe sixty percent-- somewhere in that neighborhood. The surplus-producing area of Germany is in the Russian zone.

Now, from the standpoint of where we can learn from the Germans, there are about three things. The first is that the German worships his land and his manure, and the manure is the greatest necessity he has. The manure pile right out in front of his door is the prettiest flower he has, in the eyes of the Germans. If he had to choose between his wife and his manure pile, he would tell his wife to get out. I didn't see a single stream in Germany colored from erosion, and some of the boys who have been there for years say the same thing. Two things make for that. In the first place, his land is full of organic matter. In the second place, they don't have these heavy washing rains like we have. It all goes into the ground. When he puts fertilizer out, he doesn't get it over his line. He stops one foot from that line. He is very particular that he puts it all out on his land.

The second thing is this matter of forests. (This is true, I am sure, of other areas of Europe as well.) All of their rough land is planted to trees. Whenever they cut a tree, they plant another

I. O. SCHAUB

Schaub.

one in its place. Most of the time they will cut quite a little area and replant, so that you can see them coming along in all stages of growth. Again, they will go out into the middle of one of those forests and cut a fifteen-inch tree and get it down and never break a limb. Then they save it all. We can certainly learn something from their foresters.

The third thing we can learn from them is that they are not in a hurry. I never saw a German in a hurry, except when he was running to catch a streetcar. They take plenty of time to eat. Most of their stores close in the middle of the day for one or two hours, and most of the larger stores don't open on Saturday. They have a lot of holidays, but they all work hard. The sun didn't come up when I first got there until 8:15, and it was down at 4 o'clock, but that farmer will drive his cow--if he is working the cows, and over half of the horsepower in Hesse are milk cows--half a mile or a mile, and he will be out there ready to plow just as soon as it gets light. He will be there just as late as he can see at night, but he slows down to the speed of his cows. I am not sure but what we can learn a real lesson from them. I'll bet there isn't ten percent as much heart trouble in Germany as we have got in the United States.

Those are three things I think we can learn from them.

I never found a German that had any remorse whatever about starting a war. Everyone of them regrets that they didn't win it, and they will tell you now that they are going to win it next time. They criticize us severely because we didn't join with them in turning on Russia. They are afraid of the Russians. They have respect for the Americans and the British, and nothing but contempt for the French. They know they are better than the French, and they don't hesitate to tell you so. I could have brought some pictures along. I took two series that I was asked specifically to take. One was to show how they lived in the villages with these strip crops all around. I have a number of good pictures of that. Then I have a series of pictures on how they take care of manure. I got those from small farms up to 600-acre farms. I visited a farm where the manure pile was right square in front of the door. It was about 40 feet wide and 50 feet long and about 10 or 12 feet high, and the women were hauling the manure out of the barns from a hundred Holstein cows that were being milked. This was Sunday afternoon. They really take care of their manure.

Davis.

What about those narrow strips you saw them cultivating, Dean? How many plots did they have?

Schaub.

In that particular case, it was 146. I didn't see that. I had a Jap interpreter. That was an interesting case, having a Jap interpreter over there. He was born in Germany and married a German woman. The war came on, and they shipped him to Japan, but he didn't know the Japanese language. He really had trouble until he got back

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Schaub. over there. Over half the labor on the farm is done by women. In the age group 20 to 27 in Hesse, there are 170 women to 100 men. Many of the farms are operated entirely by women. I saw them chopping trees, sawing logs, digging ditches--doing any kind of physical labor that a man can do. But as you move up above that age group, then they come up to about 50-50, until you get up to the 55 or 60 age group.

There are plenty of children over there. They are raising them up to start another war in twenty-five years. There is no question about that. The normal population of Western Germany is about thirty million. They have forty-two million living in there now. Thirty percent of their present population are displaced people. Most of them, of course, have come from the Russian zone of Germany. You don't find nearly as much tension over there about a war with the Russians as you do here. Even the Americans over there--boys that were in the Army and are now in the Military Government--are not disturbed about it now. They say it will come sooner or later, maybe in five or ten years. They are keeping up their reserve commissions.

Hutcheson. You say they believe they are going to win the next war. Whom are they going to start it with--just anybody?

Schaub. Well, the Germans have been fighting wars for two thousand years. It is just part of their normal existence. Let me make this observation. I found worlds of activity going on over there in the name of democracy that is not called democracy over here. Let me give you one illustration. The Germans of all trades and occupations are organized. That has come down through their guilds for hundreds of years. Nobody can get into an occupation unless he can pass the Board of Control or the union. The Military Government says that that is undemocratic and ordered them to discontinue that and to keep the way open so that each individual may go into any kind of occupation he wishes, provided, only, that it is not against the public welfare. The Germans are raising sand about it. I don't know whether the American Military Government will get by with it or not, but all the time they were arguing about it over there, I couldn't help but think that in North Carolina we have about twenty-five of those Boards of Control of barbers, cosmetologists, electricians--all of them. You can't go into any of those professions unless you pass the Board. So it is democratic over here but very undemocratic over there.

The Conference adjourned at 4:20 p.m.

APPENDIX

TENNESSEE VALLEY AGRICULTURAL CORRELATING COMMITTEE

PROCEEDINGS
THIRTY-FIRST VALLEY-STATES CONFERENCEThe Tutwiler, Birmingham, Alabama
Wednesday, April 6, 1949

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ROLL OF CONFERENCE^{1/}Alabama

Davis, P. O., Director, Agricultural Extension Service, Auburn
 Funchess, M. J., Dean, School of Agriculture, and Director, Agricultural
 Experiment Station, Auburn
 Smith, E. V., Assistant Dean, School of Agriculture, and Assistant Director,
 Agricultural Experiment Station, Auburn

Georgia

Chandler, S. G., Assistant District Agent, Agricultural Extension Service, Athens
 Olson, L. C., Agronomist and Soils Analyst, Agricultural Experiment Station,
 Experiment
 Skinner, L. I., Assistant Director, Agricultural Extension Service, Athens

^{1/} See text, p. 10.

VALLEY--STATES CONFERENCE

Kentucky

Cooper, Thomas P., Dean, College of Agriculture and Home Economics, and
Director, Agricultural Experiment Station and Agricultural Extension
Service, Lexington

Mississippi

Jones, L. I., Director, Agricultural Extension Service, State College
Welch, Frank J., Dean, School of Agriculture, and Director, Agricultural
Experiment Station, State College

North Carolina

Schaub, I. O., Director, Agricultural Extension Service, Raleigh

Tennessee

Chance, Frank S., Vice Director, Agricultural Experiment Station, Knoxville
McReynolds, E. C., Associate Director, Agricultural Extension Service, and
Coordinator of Cooperative Programs, College of Agriculture, Knoxville

Virginia

Hutcheson, T. B., Dean, School of Agriculture, Blacksburg
Young, H. N., Director, Agricultural Experiment Station, Blacksburg

Tennessee Valley Authority

Bass, Neil, Chief Conservation Engineer, Knoxville
Kilbourne, Richard E., Assistant Director, Division of Forestry Relations,
Norris
McAmis, J. C., Office of Chief Conservation Engineer, Knoxville
Rogers, Howard T., Acting Chief, Soils and Fertilizer Research Section,
Knoxville
White, E. H., Director, Division of Agricultural Relations, Knoxville

U. S. Department of Agriculture

Atkins, S. W., Agricultural Economist, Bureau of Agricultural Economics
Knoxville
Gaston, T. L., Assistant to the Chief, Soil Conservation Service, Washington
Johnson, Neil, Research Administrator, Agricultural Research Administration,
Washington

PROGRAM

Correlating Committee

Cooper, Thomas P., representing land-grant colleges, Lexington, Kentucky
 McAmis, J. C., representing Tennessee Valley Authority, Knoxville, Tennessee
 Clayton, C. F., Executive Secretary, Knoxville, Tennessee

PROGRAM^{2/}Morning Session

- Opening of Conference Thomas Cooper, Chairman
- I. Report of Correlating Committee Thomas Cooper, Chairman
- II. Summary of data on crop response to
 phosphate fertilizer in the Valley
 States: Progress report Howard T. Rogers
- III. The proposed Valley film on land use P. O. Davis

Luncheon

Arrangements have been made for a group luncheon, to begin at 12:15 p.m., at The Tutwiler. At the luncheon, Mr. Edward A. O'Neal, former President of the American Farm Bureau Federation, will address the Conference.

Afternoon Session

- IV. Classification and analysis of farms in the Valley counties of
 Mississippi: Evaluation of results of project
- In relation to research program Frank J. Welch
 In relation to extension program L. I. Jones
- V. Valley farm classification and analysis study, Haywood County,
 North Carolina
- Progress report. Neil W. Johnson
 Preliminary field results Sam W. Atkins
- VI. Other business
- VII. Adjournment of Conference

^{2/} See text, p. 10.

CORRELATING COMMITTEE

REPORT OF CORRELATING COMMITTEE^{3/}

by

Thomas Cooper, Chairman

PROGRESS REPORT

Agricultural Program Correlation in the Tennessee ValleyProposed Report of Correlating Committee

At the meeting of the Conference on October 6, 1948, the Chairman of the Correlating Committee laid before the Conference a preliminary draft of a proposed report of the Correlating Committee entitled "Agricultural Program Correlation in the Tennessee Valley." Following considerable discussion of the proposed report, the Conference adopted the following resolution:

That the chairman appoint a committee of three members of the Conference to review, clarify, and brief the additional proposals and recommendations under discussion; that they report to the Correlating Committee, and that the Correlating Committee present this report to the next meeting of the Conference for discussion and action.

The chairman appointed Dean T. B. Hutcheson to serve as chairman of this committee and three members as follows: Neil Bass, L. I. Jones, and H. N. Young.

Pursuant to the resolution, this committee has prepared and submitted a report to the Correlating Committee. A copy of the report has been mailed to members of the Conference. With your permission, I shall ask Dean Hutcheson, chairman of the committee, to present the committee's report at this time.

Cooperative Research

At its meeting on February 28, 1949, the Correlating Committee again considered the following statement contained in Secretary Anderson's letter of March 28, 1946:

There are, of course, many types of research projects on which the Department, the Colleges, the TVA, and other agencies in the Valley States, could well cooperate if we are to develop a sound and coordinated agricultural program in the Valley. Cooperative research projects have, of course, been carried on for many years with respect to a wide variety of studies. Generally speaking, the interagency relationships with respect to this research work have been satisfactory from the viewpoint of the Department. There are, however,

^{3/} See text, p. 11.

AGRICULTURAL PROGRAM CORRELATION

several fields in which I believe research work in the Valley States might well be expanded.

The committee agreed that effective correlation of the agricultural program in the Valley requires a clear definition of the agricultural objectives under the unified program of watershed protection and agricultural development provided for in the Tennessee Valley Act and a presentation of current research projects and work programs organized in relation to these major objectives. The executive secretary was instructed to work out, in cooperation with selected members of the staffs of the cooperating agencies, a draft of a statement of this type for consideration by the Correlating Committee.

A further report on this subject will be made to the Conference at a later date.

REA-TVA Relationships

The suggestion for a report on REA-TVA relationships in the Tennessee Valley originated with Secretary Anderson. Pursuant to this suggestion, the Correlating Committee requested the Department and the TVA to prepare and submit a statement on this subject. No statement has been submitted to the Correlating Committee. In view of the time that has elapsed and of the fact that inquiries regarding the report have several times been made by the Correlating Committee, the committee now proposes to drop this item from its agenda, unless representatives of the agencies involved desire to initiate steps to get the suggested report prepared and submitted.

USDA Estimates of Production Goals for Agriculture

At its meeting on February 28, 1949, the Correlating Committee discussed the problem presented by the establishment of production goals for agriculture in the Tennessee Valley, and the steps that have been taken in regard to this matter were reviewed. The committee directed the executive secretary to arrange, if possible, a meeting of responsible officials of the Department of Agriculture with the Correlating Committee for the purpose of clarifying the problems involved and working out a solution, if possible. The Correlating Committee proposes to hold such a meeting as soon as mutually convenient arrangements can be worked out.

Meeting of Committee of Presidents Land-Grant Colleges of the Valley States with TVA Board of Directors

A meeting of the presidents of the Valley land-grant colleges was held in Knoxville on February 7. The day was spent in discussion of various problems which involved relationships and in the development of the cooperative work between land-grant colleges and the Tennessee Valley Authority. The group suggested that the presidents request a meeting with Secretary of Agriculture Brannan and Chief of the Soil Conservation Service Hugh Bennett, for the purpose of reiterating the principles of a unified program which the land-grant colleges wish to preserve with respect to interagency relationships.

CORRELATING COMMITTEE

It was requested that, insofar as possible, the Valley colleges seek the support of the Executive Committee of the Association of Land-Grant Colleges. Each State of the Valley Conference was requested to undertake the preparation of a concrete appraisal of program results to date and prepare facts and figures to indicate the progress that has been made. It is understood that the findings will be submitted to the Tennessee Valley Authority for combination, and the preparation of an overall report, which report is to be presented over the signatures of the presidents of the land-grant colleges. It was suggested by the Chairman that the college presidents of the various States write the Secretary of Agriculture, requesting an intensification and expansion of the pilot farm classification and analysis study to include other counties in States other than North Carolina.

Representation of Federal Agencies in Valley-States Conference

U. S. Department of Agriculture

Originally, Departmental membership in the Valley-States Conference included the Chief of the Office of Experiment Stations and the Director of the Extension Service, in addition to the Departmental representative on the Correlating Committee. At the meeting of the Conference on October 2, 1946, the Correlating Committee stated that it had recommended designation of three additional Departmental representatives to serve as members of the Conference. Pursuant to this recommendation, the Secretary of Agriculture designated Mr. Dave Davidson, Director, Field Surveys Branch, Production and Marketing Administration; Dr. R. E. McArdle, Assistant Chief, Forest Service; and Mr. T. L. Gaston, Assistant to the Chief, Soil Conservation Service, as members of the Conference. The Department has been requested to name a representative to succeed the late Mr. Davidson.

Tennessee Valley Authority

The recommendations that members of standing committees be regular members of the Conference and that TVA have at least one representative on each of the standing committees led to the request that the Tennessee Valley Authority officially designate five members of its staff, in addition to TVA's representative on the Correlating Committee (Mr. McAmis), to serve as members of the Conference.

Accordingly, TVA has named the following members of its staff to serve as members of the Conference: Neil Bass, Chief Conservation Engineer; C. H. Young, Director, Division of Chemical Engineering; Willis M. Baker, Director, Division of Forestry Relations; E. H. White, Director, Division of Agricultural Relations.

It is assumed that TVA may name an additional member at a later date.

MISCELLANEOUS ITEMS

State Contact Officers

At the meeting of the Correlating Committee on February 28, 1949, the various steps taken by the committee to get contact officers appointed by the Valley States colleges were reviewed. The committee authorized the executive secretary to visit the various colleges and discuss with the directors the question of designating a contact officer to serve actively in that capacity and possible arrangements for more effective participation of these officers in the correlating processes.

Marketing of Farm Products

At the meeting of the Correlating Committee on February 28, 1949, attention of the committee was called to the statement on the subject of marketing of farm products made by Director L. I. Jones at the meeting of the Conference on April 7, 1948. The viewpoint of the committee was that the matter under discussion should be handled through the administrative channels of the colleges and that no useful action could be taken by the Correlating Committee.

Summary of Experimental Data on Phosphate

The proposal to prepare a summary of experimental data on phosphate originated in a recommendation made by the Committee on Research which was reported to the Conference at its meeting on April 3, 1945. At that meeting, the Conference adopted a proposal contained in the report of the Committee on Research that the correlator for that committee secure from the Valley States agricultural experiment stations data on phosphate research work conducted by them in the past, and that these data be summarized and evaluated as a basis upon which the committee may recommend initiation of fundamental research projects involving phosphorus. Further reports on this proposal were made to the Conference on October 5, 1945 (Proc. XXIV, p. 6), October 2, 1946 (Proc. XXVI, p. 4), April 7, 1947 (Proc. XXVII, p. 4), and on October 1, 1947 (Proc. XXVIII, p. 4). Although the office of correlator has been abolished, the proposed work has been carried on under the leadership of Dr. Howard T. Rogers, Division of Agricultural Relations, TVA. By referring to your program, you will note that Dr. Rogers will present a progress report on this work later this morning.

Southern Educational Film Production Service

At the meeting of the Conference on October 6, 1948, Mr. White, Mr. McReynolds, and Mr. Chandler made statements to the Conference in regard to the work of the Southern Educational Film Production Service. The possible contribution of the Film Production Service to the development and understanding of the regional agricultural program was stressed by Mr. Chandler. The Correlating Committee has been informed that these possibilities have been further explored since the last meeting of the Conference and that a definite proposal has been developed. Director Davis has agreed to lay this proposal before you at a later period on the program.

CORRELATING COMMITTEE

Classification and Analysis of Farms
in the Tennessee Valley

At the meeting of the Correlating Committee on February 8, 1949, the executive secretary made a brief report to the committee in regard to the progress of work on the farm classification and analysis study in Haywood County, North Carolina. We have previously reported to you the initiation of a project for the classification and analysis of farms in the Valley counties of the State of Mississippi. The field work in Mississippi has been carried on under the immediate leadership of Dr. Otis T. Osgood. Our feeling was that the work in Mississippi had gone far enough to permit a reasonably valid evaluation of the project from the standpoint of its contribution to program analysis and program results in the Valley counties of Mississippi. Accordingly, we have asked Director Welch and Director Jones to comment on the project from these points of view at the afternoon session of the Conference.

In the same connection, we feel sure that you will be interested in having a progress report and a statement based on preliminary field results on the project now being carried on in Haywood County, North Carolina. Mr. Neil W. Johnson, regional project leader, and Mr. Sam W. Atkins, regional field leader, will present statements along these lines at the afternoon session.

The statements in regard to this work in Mississippi and in North Carolina should be of especial interest at this time in view of the proposal which I mentioned earlier in this report that the college presidents of the various States write the Secretary of Agriculture, requesting an intensification and expansion of the pilot farm classification and analysis study to include other counties in States other than North Carolina.

Regular Meetings of the Correlating Committee

The preliminary report on agricultural program correlation in the Tennessee Valley, presented to the Conference at its meeting on October 6, 1948, states:

Regular meetings of the committee will be held quarterly, on the first Wednesday in the months of February, April, July, and October, at a time and place agreed upon by the committee. The meetings in April and October will be joint meetings with the Tennessee Valley Conference. Special meetings may be held on call of the executive secretary, on a day and at a place and time agreed upon by the committee.

At its meeting on February 8, 1949, the Correlating Committee adopted the foregoing statement.

Dr. Harcourt A. Morgan

At its meeting on October 6, 1948, the Conference voted to request that Dr. Frank P. Graham and the Chairman prepare and transmit to Dr. Harcourt A. Morgan, on behalf of the Conference, a statement in recognition of his services and an expression of appreciation of his contribution to agriculture and to the public welfare.

HARCOURT A. MORGAN

Pursuant to this resolution, the following actions have been taken:

The statement was sent to Dr. Morgan on March 24, 1949, with the following letter of transmittal:

Dr. Harcourt A. Morgan
Knoxville, Tennessee

Dear Friend:

The Valley-States Conference, at its meeting October 6, 1948, voted that, on behalf of the Conference, a statement should be prepared and transmitted to you in recognition of your services and in appreciation of your valuable contributions to agriculture and to the public welfare. Also, at that meeting, President Graham made a splendid and worth-while address in which he reviewed your outstanding achievements and the manner in which you have devoted your life to the welfare of the citizens of the South. I am happy to transmit herewith a statement on behalf of the Valley-States Conference - it is an attempt to pay tribute to you and your outstanding accomplishments and to express the high esteem and warm affection in which you are held by all members of the Conference.

Cordially yours,

/s/ Thomas Cooper

Thomas Cooper, Chairman
Tennessee Valley Agricultural
Correlating Committee

The statement enclosed with the letter of transmittal follows:

In view of the retirement of Dr. H. A. Morgan as director of the TVA, the Valley-States Conference passed a resolution of appreciation of his more than fifty years' leadership and services through scientific research, university administration, and directorship of the TVA.

The work of Dr. H. A. Morgan toward the elimination of the cattle tick which opened the way for the development of a livestock industry in the South; his understanding and vision of the importance of phosphates and lime for the regeneration of southern soils, the development of a diversified agriculture, the balancing of agriculture with local industries, the conservation of soil and water resources and their utilization for the benefit of the people of the region and the Nation, and his persistence in helping to translate the findings of research into the practices of the people on the farms and in the homes, will be an enduring benefaction to the people of the region.

CORRELATING COMMITTEE

His ideas of the unity of the natural and human resources of a region were embodied in the TVA. To the TVA as one of the original directors, he gave its basic philosophy and policy of making the indigenous local and state institutions and agencies the channels through which a great river system became the broad basis of a high adventure in creative cooperation for the fulfillment of the life and aspirations of the people of a great region.

The Valley-States Conference sends him this simple expression of appreciation with the affectionate wish and he will long continue to be a benediction to our people.

The following reply, dated March 30, 1949, was received from Dr. Morgan:

Dean Thomas P. Cooper
Chairman, Correlating Committee
University of Kentucky
Lexington, Kentucky

Dear Dean Cooper:

A few days in the hospital (nothing serious) has delayed acknowledgment of your letter of March 24 accompanying a testimonial from that Conference in which I have had such a long-time interest and for whose members I have great respect and affection.

The objectives of any organization determine not only its contribution but its length of life. Your organization has not only a lengthy but a contributing existence. Its future promises more in creative productive effort and blessing to the region and nation it serves.

When I read this message of the Conference to me, I felt a deep sense of humility and yet I am human enough to have felt also a sense of great satisfaction that, in my evening years, such warmth of appreciation should come from such worthy associates.

The message encourages me to press on. There is a great harvest of opportunity just out in front. The creative spirit of man will permit no slowing up of productive effort.

I am glad to have my sincere appreciation to all the members of the Conference passed through the hands of its Correlating Committee of which you are chairman.

Most sincerely yours,

/s/ Harcourt A. Morgan

ADDITIONAL PROPOSALS

Next Meeting of Conference

The Correlating Committee recommends that the next meeting of the Conference be held in Atlanta, Georgia, on Wednesday, October 5, 1949. It is proposed to include reports of the standing committees of the Conference on the program of this meeting.

ADDITIONAL PROPOSALS AND RECOMMENDATIONS

The committee has no additional proposals or recommendations to present.

REPORT OF SPECIAL COMMITTEE ON AGRICULTURAL PROGRAM CORRELATION IN THE TENNESSEE VALLEY⁴

by

T. B. Hutcheson, Chairman

Introduction

Over a year ago, the Correlating Committee was asked by the Valley Conference to explore the possibility of devising more effective participation of standing committees in the correlation process. Suggestions were advanced as to alternative ways of organizing a more satisfactory committee system. These were considered, along with others, in the preparation of the report presented to the conference at its Asheville meeting. The special committee charged with the condensation and clarification of the original report believes that the recommendations for the reconstitution of committee structure and functions were valid. In submitting our revision to the Correlating Committee, we have, therefore, stressed the proposed changes in committee structure and assignments and kept to a minimum all material which was more or less generally descriptive of the over-all purposes and machinery of the correlation process.

Background Statement

In making its recommendations with respect to the proposed changes in the organization and work of standing committees, our committee had in mind the basic provisions of the Memorandum of Understanding together with the contracts, projects, and work plans associated with it and the benefits of this experience.

On the basis of 15 years' experience, the committee feels that there is need and opportunity for the cooperating agencies to more effectively correlate and utilize such of their experience, skills, knowledge, resources, and relations with people of their respective areas as can be made available for furthering the objectives of the joint program of development and sustained use of natural resources, particularly reference to land and water resources. No change in the fundamental provisions of the Memorandum is considered either desirable or necessary for this

⁴/ See text, p. 11.

REPORT OF SPECIAL COMMITTEE

purpose. The proposals for changes in the machinery for cooperating more effectively in this unified program are considered to be consistent with the policies and programs of the cooperating agencies as defined in the Memorandum of Understanding and as verified by experience. The committee believes that the recommendations contained in the body of this report will give greater vitality to these policies and programs and speed up the accomplishment of our regional program.

The states have pledged themselves to active participation in this unified program in the Tennessee Valley. Their representatives, collaboratively with USDA and TVA, define the nature and extent of programs of regional significance in agriculture, and unify their respective efforts insofar as practicable towards this mutually defined goal, retaining meanwhile full responsibility for the administration of all activities carried on in their respective states.

A Correlating Committee provides the medium through which proposals for joint coordinated activities, which the Correlating Committee considers of sufficient merit to warrant formulation of a project involving two or more agencies, will be submitted to all parties to this Memorandum of Understanding with suggestions and recommendations. The committee's three members represent the state land-grant colleges, the USDA, and TVA.

At the state level, a contact officer is designated whose chief responsibilities are to (1) familiarize himself with the work of the Tennessee Valley Authority affecting the agriculture of the region and that of the Department of Agriculture, and to make this information available to the experiment station and extension staffs of his state; (2) promote progress on joint projects; and (3) serve in the capacity of liaison officer with the Correlating Committee.

Recommendation on Standing Committees

In the past, the division of committee responsibilities was confined solely to the agricultural program. Furthermore, the limitations of subject matter tended to segment rather than integrate the various phases of the joint cooperative program. The proposed committee arrangements, if adopted, would remedy this tendency and pull back into broad perspective the various regional resource problems confronting the conference and the Correlating Committee. In the past, specialists were called upon to consider some one facet of a larger problem. It is proposed that whole problems ought to be examined by a team possessing diverse skills and interests. The following standing committee structure could accomplish this:

1. Committee on Plant Facilities and Products

This committee would advise the Correlating Committee and, through it, the principal parties, upon plans, policies, and programs with respect to the use of research and production facilities engaged in the development of new and improved fertilizer materials. For example, they would make studies and recommendations as to the kinds and amounts of specific materials needed now or in the future for the accomplishment of agreed upon regional agricultural and watershed protection objectives. They would help identify the promising but unexplored fields of alternative fertilizer sources.

REORGANIZATION OF STANDING COMMITTEES

2. Committee on Water and Land Use

This committee would be concerned with adjustments in land use, the testing and large-scale use of materials produced in experimental plant operations, farm forestry, and the application of engineering skills and sound farm management principles to the readjustment of practical farming operations, all in the interest of watershed protection and agricultural development.

3. Committee on Rural Facilities, Services, and Industry

This committee would be primarily concerned with the social and community aspects of the integrated program, including such factors as the development of the full economic potentialities of rural production, distribution and marketing facilities; educational assistance to farmers' cooperatives; and the stimulation of rural enterprise complementary to food and fibre production on farms.

Establishment of the Standing Committees

The chairman of the Conference appoints to each committee from among the regular members of the Conference four committeemen, one of whom he designates as chairman. Each committee shall have a minimum of one USDA, one TVA, and one land-grant college representative. The chairman of the Standing Committee may, with the prior concurrence of the appropriate administrative official of the concerned agency, invite the participation of additional staff members in the work of his committee, taking into account the various skills and points of view required for the satisfactory study of assigned problems. The Executive Secretary of the Correlating Committee serves as the secretary of each standing committee, and will issue notices of meetings as the chairman may direct. He shall be kept informed of the viewpoints of the Correlating Committee; shall, upon request, assist in the correlation of the work of the various standing committees; shall be the custodian of the official records of all standing committees; and shall have the privilege of the floor on such committees for the purpose of presenting matters related to the performance of these functions. Standing committees meet at least once each year at a time and place agreed upon by the committee and report annually to the October meeting of the Valley Conference.

Functions of the Standing Committees

Standing committees help the Valley Conference and the Correlating Committee develop an understanding of problems in special fields and suggest consistent, unified, and effective methods for dealing with problems once they are defined. Of necessity, they will be concerned with methods of collaboration with farmers' cooperatives and other private and public agencies having collateral interests in resources related to agriculture, such as electric power, public health, etc.

In its particular field of work, a standing committee considers problems that may originate with it or that may be referred to it by the Correlating Committee. Problems which do not originate with the standing committee concerned or with the

CROP RESPONSE TO FERTILIZERS

Correlating Committee should be referred by the originating source to the Correlating Committee for handling or referral in the committee's discretion. Reports, proposals, or recommendations of a standing committee are made to the Correlating Committee or, with the concurrence of the Correlating Committee, to the Valley Conference.

Additional Suggestions

Your special committee, in submitting this recommendation for the consideration of the Correlating Committee and the Valley Conference, recognizes that some refinement of the proposal is desirable. Probably one of the first tasks of the new standing committees would be to spell out in greater detail their respective fields of responsibility and methods of carrying out actual assignments. The unfinished business of existing committees should be reassigned to the new committee. Other adjustments may be necessary. It is hoped that this need for amplification of the proposal will not stand in the way of favorable consideration of its major features.

/s/ L. I. Jones
L. I. Jones

/s/ H. N. Young
H. N. Young

/s/ Neil Bass
Neil Bass

/s/ T. B. Hutcheson
T. B. Hutcheson, Chairman

INTERPRETATION OF REPORT
ON

CROP RESPONSE TO FERTILIZERS IN ALABAMA
(A Summary of Experimental Data, 1911-46)^{5/}
by
Howard T. Rogers

Part I. History and General Objective of the Study

The TVA is engaged in a program of research in fertilizer process technology and in fertilizer use, with emphasis on phosphate fertilizers. Obviously, the direction and scope of this research, as it applies to the Tennessee Valley, should be based largely on the needs of the agriculture of the region in relation to soil fertility. The most important source of reliable information on fertilizer use and needs of the Valley is the experimental findings of the agricultural experiment stations, several of which had been conducting investigations in this field for about 30 or 40 years prior to the initiation of fertilizer research at Muscle Shoals.

^{5/} See text, p. 37.

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It would appear desirable to utilize to the maximum the vast amount of experimental data on phosphate fertilization which these state agencies have accumulated over this period of years. Fortunately, through its program of cooperative research with the Valley experiment stations, a large amount of both published and unpublished data on the use of phosphate fertilizers for crop production has been made available to TVA for its use in directing both research in fertilizer technology and educational programs with farmers.

In evaluating the results of the TVA-State experiment stations cooperative research in the field of fertilizer investigations, the Research Committee of the Valley States Conference recommended in 1945 that the TVA collaborate with the experiment stations in assembling and analyzing the data on the use of phosphates in crop production. The Committee pointed out the need for a summary of the results dealing with the use of phosphates in this area and the value of such an analysis as a guide in developing state and regional research projects in this field.

The report, "Crop Response to Phosphate Fertilizers in Alabama--a Summary of Experimental Data, 1911-46," is an attempt to summarize, analyze, and evaluate the results of several thousand field experiments conducted by the Alabama Agricultural Experiment Station over the 35-year period.

As pointed out in this report, no similar study has been made in this country involving the condensation and analysis of research data from a heterogeneous group of fertilizer tests. Procedures and various types of summaries had to be developed and, in this respect, the project is in itself an experiment in the field of research interpretation. The British scientists, during the early years of World War II, based their national fertilizer rationing policy on a somewhat similar summary of the research data from field experiments which were available in Great Britain and parts of Europe.

Obviously, the TVA, through its cooperative research program, has contributed to only a very minor part of the research data which are summarized in this study.

A member of the TVA staff spent about seven months at Auburn, Alabama, on the somewhat tedious task of assembling the data which are the basis of this report. Procedures have been developed in the Alabama study which are being used by personnel in the other Valley stations who are cooperating in the regional study. A regional summary is planned when the state reports are completed.

Part II. Digest of Experimental Findings

The processed report includes 14 illustrations, 21 small tables, 28 large appendix tables, and a complete bibliography of station publications dealing with the use of phosphate and soil phosphorus investigations. It is estimated to cover at least 95 percent of the field experiments conducted by the Alabama Experiment Station during the 35-year period, dealing with the use of phosphates for crop production and related problems.

Some of the important facts disclosed by this summary were:

CROP RESPONSE TO FERTILIZERS

TVA and Other Sources of Phosphate

When allowance was made for sulfur, there was little difference between the following sources of phosphorus for cotton as compared with 16-20 percent superphosphate; triple super, calcium meta, potassium meta, precipitated tricalcium, and monosodium phosphates.

Fused tricalcium phosphate of 40-mesh fineness and less than 0.4 percent fluorine content in comparison with 16-20 percent superphosphate produced relative yields of 110, 91, 85, 91, and 93 on corn, oats, sorghum, Sudan grass, and vetch, respectively. In another series of experiments, fused tricalcium phosphate compared favorably with triple superphosphate at eight locations on soils of above average fertility. These results suggest that the less soluble processed phosphates such as fused tricalcium may not perform as satisfactorily on soils extremely deficient in native soil phosphorus as on soils with higher phosphorus levels.

A rather severe deficiency of sulfur in some Alabama soils was shown by an average increase of 144 pounds of seed cotton per acre from sulfur applications to Norfolk and related soils. This was a 17 percent increase in yield. It appears that sulfur deficiency would soon become an acute fertility problem in Alabama if all fertilizers were nonsulfur-bearing.

Although (as an average of 221 tests) rock phosphate-treated soils yielded 91 percent as much cotton as the superphosphated areas, the less soluble phosphate increased the yield only 2.2 pounds of seed cotton per pound of P_2O_5 applied in contrast to 7.1 pounds from superphosphate. In these tests, rock phosphate was applied at approximately double the P_2O_5 rate used in superphosphate.

Comparison of Crops as to Response to Phosphate

Vetch, pasture, and hay crops gave the greatest response to phosphate on a percentage increase basis, whereas corn responded least. Phosphate applied at the rate of 45 to 58 pounds of P_2O_5 per acre produced average increases of 245 pounds of seed cotton, 6.9 bushels of corn, 7.8 bushels of oats, 205 pounds of peanuts, 864 pounds of dry weight pasture herbage, 849 pounds of legume hay, or about 5,000 pounds of green weight winter legume. As an average of about 1,700 tests, one pound of P_2O_5 produced 4.54 pounds of seed cotton. Likewise, one pound of P_2O_5 produced 7.4 pounds of corn, 5.4 pounds of oats, or about 22 pounds of legume hay.

Residual Effects of Phosphate vs Phosphorus Fixation by Soils

In long-term experiments, the residual effect, after phosphate applications had been discontinued, or rock phosphate (at 2 to 4 times the rate of P_2O_5 applied as superphosphate) was somewhat greater than the residual effect from superphosphate for all crops tested. This residual effect of previous applications of phosphate was quite pronounced on crop yields and was also reflected in beef production from pastures which had been phosphated. Evidently, much of

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the phosphorus heretofore defined as chemically "fixed" is available to plants over a period of time.

Fate of Applied Phosphate

Studies of several long-term field experiments indicate that as much as 26 to 82 percent of the applied phosphorus could not be accounted for on the basis of crop removal or that remaining in the soil. This loss was attributed to erosion, even though the plots were located on relatively level land. The efficiency of recovery of applied phosphorus was quite low, even in long-term experiments. About 20-percent recovery was the maximum; and in several experiments it was not more than 10 percent. Percent recovery was inversely related to the amount applied.

Comparison of Soils as to Phosphate and Sulfur Needs

Certain tests with cotton were conducted in large enough numbers to be separated on the basis of representative soil groups of the State. Response to phosphorus application for the different soil groups was, in decreasing order, as follows: Clarksville, Cecil, Hartsells, Norfolk, Decatur, and Greenville. A similar study with respect to the need for sulfur indicated response in the following decreasing order: Norfolk, Hartsells, Greenville, Clarksville, Cecil, Holston, and Decatur soils. It was concluded that sulfur would soon become an acute fertility problem in Alabama if all fertilizers were nonsulfur-bearing.

Effects of Phosphate on Composition of Pasture Herbage

In every case, applied phosphate increased the phosphorus content of mixed pasture herbage, the increases ranging from 15 to 100 percent. The average increase on all soils was 44 percent, which, it is believed, resulted largely from an increase in percentage of legumes in the sod. Five of the 16 samples of untreated herbage were below the recommended allowance for 400-pound calves. The application of phosphate, however, brought the phosphorus content of the herbage from all areas above the recommended level for fattening stock, but even after fertilization 14 of the 16 samples of herbage were still below the 0.28 percent phosphorus recommendation for young growing stock.

Part III. Significance of Experimental Findings on Crop Response to Phosphate Fertilizers to TVA's Activities in the Field of Fertilizers

Relationship between Research in Fertilizer Use and Research in Fertilizer Technology

The requirements of agriculture for types of fertilizer material to meet specific needs has a direct bearing on the nature of research in process development.

CROP RESPONSE TO FERTILIZERS

Research in the development of processes for the production of new or improved fertilizers must be guided by results from the use of these materials for crop production. It is obvious that little progress can be made in producing new fertilizers unless provision is made for adequate testing of the products to evaluate their suitability for agricultural use.

The Alabama Agricultural Experiment Station has been recognized for its outstanding research in fertilizer use during the past 25 years. Research on sources of phosphate dates back to 1911 and intensive work on rates and sources of fertilizer was conducted during the 20's. Starting in 1930, concentrated superphosphate was included in most of the sources experiments.

To illustrate the application of the research findings presented in this report, the question of whether to continue large-scale production of triple superphosphate might be analyzed. As to the testing of this material, it would appear that the relative efficiency of triple superphosphate has been well established for a wide variety of crops and soil conditions. In fact, triple superphosphate is now used widely as a standard source of phosphate for evaluating other sources. The Alabama summary shows a relative yield value of 98 for triple superphosphate, as compared with 16-20 percent superphosphate, on cotton as an average of 1,008 tests conducted over a period of 16 years. Similar relative yield values for triple superphosphate on corn, kudzu, and soybeans were 96, 100, and 104, respectively.

Indications are that the job of process development for triple superphosphate is about completed and the material has been adequately tested as a source of phosphate for crop production. This conclusion would, of course, have a direct bearing on a decision to utilize the facilities, personnel, and funds involved in large-scale production of triple superphosphate for research on other materials.

Relationship between Research in Fertilizer Use and TVA's Educational Activities (Test-demonstration)

It hardly appears necessary to point out the desirability of basing any action program centered around the use of fertilizers on the findings of the state agricultural experiment stations. A primary objective of station research is to provide factual information for the educational program conducted by the state extension services. This function of the experiment station is generally taken for granted, and Alabama probably enjoys one of the most effective relationships between research and extension of any of the Valley states.

The information on sources of phosphate, response to various rates of phosphate by the major crops, residual effects, and efficiency of applied phosphate are points of immediate interest to the extension agronomist and county agents. For instance, the recognition of a marked residual effect of previous fertilization will affect the recommendation as to amount of phosphate to apply on individual farms, and even on specific fields.

Special effort was made in the Alabama report to compare station recommendations on the use of phosphate with the schedule of rates approved by the

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Extension Service for eligible crops on test-demonstration farms. The schedule of rates was strictly in line with the station recommendations for the use of phosphate on various crops. It was pointed out, however, that the extension program recommendations do not show the flexibility in rates for the various crops which is suggested by station agronomists. This suggests that the approved rates should be used as a guide only and considerable weight be given to such factors as previous fertilization, utilization of crop, cropping system, and character of soil.

Value of a Summary of Experimental Results
in Planning Future Research Projects

One of the primary uses of a summary of experimental data such as the Alabama report presents will be in planning state and regional research projects in this field. First, the actual data constitute a significant contribution to our knowledge of broad general principles of soil fertility and fertilizer use. Secondly, gaps in our information are pointed out, which is possible only when all of the existing data are examined. For instance, a study of the distribution of experiments by crops revealed that cotton had been used in Alabama as the indicator crop on 70 percent of the locations tested for response to phosphate. This reflected the relative importance of this crop in the agricultural economy of the state during the 35-year period. A study of the work underway in 1947, however, revealed that a much higher percentage of the experiments currently underway involve pastures and hay crops than during the earlier years of the station's program. It was shown by a comparison of crops that cotton could not be relied upon as an indicator crop to show the needs of other crops for phosphate.

Another important contribution which this study will make to our research program is its value in improving experimental techniques. Lessons in principles of experimental design to be learned from such a critical study of variously designed tests are too numerous to discuss here. As an example, a study of the data on sources of phosphate reveals the essentiality of controlled, well-replicated experiments on soils deficient in the plant nutrient being tested if the objective is to evaluate different fertilizer materials.

VALLEY FARM CLASSIFICATION AND ANALYSIS STUDY
HAYWOOD COUNTY, NORTH CAROLINA

PROGRESS REPORT^{6/}

by
Neil W. Johnson

You will recall that this experimental study now under way in one county is designed to test a procedure suggested by the Tennessee Valley Agricultural Technical Committee. It seeks (1) to identify the more important farming situations in Haywood County as measured by physical conditions, types of farming, and size of farms; (2)

^{6/} See text, p. 45.

FARM CLASSIFICATION AND ANALYSIS STUDY

to determine the relative importance of these groups having similar problems and opportunities; (3) to study how these farms are currently organized and operated; (4) to work out desirable alternatives in organization and operation that will conserve resources, improve incomes, and provide stability in farming; and (5) to appraise probable long-term aggregate effects on crop and livestock patterns for the area as a whole, the quantities of fertilizers needed, the volume of new capital necessary to finance adjustments, the amounts of new farm service buildings, new machinery, etc. that would be needed if desirable adjustments are carried out. Having developed this research orientation on the nature of needed adjustments and the magnitude of the job, there is the additional objective of how State and Federal agencies can best cooperate in assisting farmers to move forward in the directions indicated.

At our Asheville meeting six months ago, the Haywood County study was still pretty much in the "talk" stage. Some advance work had been done in Washington in working with the 1945 Agricultural Census schedules to get an idea of the important types and sizes of farms in the county but this information had not yet been analyzed, working agreements between cooperating agencies were still to be developed, and the whole plan of field organization and operation was still ahead.

Immediately following the Asheville meeting, our first working conference was held in Knoxville where plans were tentatively made to get on with the job. Because of the need to start field work ahead of winter weather in a mountain county, a gentleman's agreement was entered into whereby cooperating agencies could proceed ahead of the necessary paper work.

Agencies participating in the work include the North Carolina Agricultural Experiment Station, the Tennessee Valley Authority, the Soil Conservation Service, the Bureau of Plant Industry, Soils, and Agricultural Engineering, and the Bureau of Agricultural Economics. After an interchange of ideas, a brief work plan was developed and agreed upon by the cooperating agencies, this becoming effective as of November 1, 1948. All agencies have been generous in implementing this work plan by making trained personnel regularly available for the field work and in supplying the advice and counsel of others on a consultative basis. Personnel who have worked most continually on the project for the different agencies are as follows:

M. S. Williams, North Carolina Agricultural Experiment Station
and Extension Service
Birger W. Ellertson, Tennessee Valley Authority
John L. Brown, Soil Conservation Service
Lester Odom, Bureau of Plant Industry, Soils, and Agricultural
Engineering
Samuel W. Atkins (field party leader), Bureau of Agricultural
Economics

The natural and social scientists have assisted each other on various phases of the work until I am sure they have a better understanding of all aspects of the problem than was true five months ago.

Separate memoranda of understanding have been executed by the TVA and the SCS with BAE whereby these agencies agreed to contribute toward the salary and expenses of the field party leader assigned to the project. TVA is contributing office space as field headquarters for the project and making clerical and stenographic

NEIL W. JOHNSON

assistance available to the field party leader. BPISAE has given access to the unpublished field sheets of a recent soils survey of Haywood County and has made an auto available for use in field work. It is perhaps unwise to attempt a listing of the contributions of each agency, for they have been of so many kinds that I am unfamiliar with them all. Suffice is to say that a fine spirit of cooperation has caused each agency to extend itself in giving the work in this experimental county a fair trial.

With this background, what has been accomplished in the study to date? This can best be told by Mr. Sam Atkins, field party leader of the project, who is here today to discuss some of the preliminary field results. I will only briefly outline the major steps that have been taken.

The first task and probably the most troublesome facing the field party was that of identifying the more important farming situations in Haywood County as judged largely by soil characteristics, type and size of farm. The material obtained from the Census schedules proved to be of considerable value in judging important differences in farm sizes and types. The relating of this information to the soil characteristics of individual farms presented a more difficult problem. In the Oklahoma study, from which many of the techniques used in Haywood County were borrowed, it was possible to locate individual farms directly on large-scale soils maps. It was thus relatively easy to insure that the important differences in soil characteristics were recognized in sampling farms for study. In Haywood County, however, legal descriptions of farm lands were not available from any source, and it was necessary to spend nearly two weeks of preliminary work in the field locating farms and spotting them on soils maps to insure that the farms subsequently studied would reflect the important differences in soil resources as well as those in size and type. As a consequence, the actual taking of farm records was delayed until the last week in January. Mild weather permitted almost uninterrupted work, however, and by February 16 the field work was completed--records having been obtained from about 165 farmers. You will recall the interest expressed at our Asheville meeting in giving the farm forest enterprise adequate consideration in our Haywood County study. This has been done, with foresters as well as soils scientists and economists taking an active part in the field work.

During the past six weeks preliminary analyses of the field data have been made to become familiar with the characteristics, the problems, and the opportunities on the ten different farming situations that have been recognized. The field party is now about ready to start on one of the last phases in the research analysis--that of studying in detail a case farm from each of these groups. This will involve a limited amount of additional field work in preparing detailed soils maps for the farms in question, in surveying the timber resources more thoroughly, and in determining as carefully as we can the alternative ways in which such farms could be organized and operated to improve farm incomes and conserve resources. When this is done, we hope to have a body of information that will be of considerable assistance to those who are assisting farmers in planning for a sustained agriculture in Haywood County.

Regardless of the desirability of thoroughness in the research phases of the work, I am conscious of the need for providing as rapidly as possible a basis for cooperative effort in assisting farmers in making desirable adjustments in the county. I would like a frank expression from this group regarding our rate of progress.

FARM CLASSIFICATION AND ANALYSIS STUDY

It will still be several months before the analytical work is completed and a report made available in final form. Are those most concerned willing to wait, or should we be considering every possible short-cut that will provide reliable results? After you have heard from Mr. Atkins, we will welcome some discussion of this matter.

VALLEY FARM CLASSIFICATION AND ANALYSIS STUDY
HAYWOOD COUNTY, NORTH CAROLINA

PRELIMINARY FIELD RESULTS^{7/}

by
Samuel W. Atkins

DESCRIPTION OF THE AREA

To provide a setting for the preliminary field results, I would like to comment briefly on the physical and economic resources and development in Haywood County.

This area, located in the western mountain portion of the State, has a topography varying from narrow level stream bottoms to strongly rolling and mountainous upland. The soils of the narrow valleys and coves are very productive under reasonably good management. Most of the strongly rolling soils are in the Hayesville-Halewood soil association. Ramsey and Porters soils represent the poorest and best mountain soils, respectively, but together they constitute only a small percentage of the soils of the area.

Burley tobacco, the major cash crop, is widely grown. Corn and hay are grown on most farms, chiefly for feed. Apples is an important crop on a few farms. Beef and whole milk are the major commercial livestock products. Hogs and poultry are not important commercially.

Off-farm employment is provided several hundred farm people by three large manufacturing plants: Enka Rayon Plant in Buncombe County, and Champion Fiber Company and Dayton Rubber Company in Haywood County. There are numerous other off-farm job opportunities in the latter county. On many farms, either or both the operators and some member of their families work full time at nonfarm jobs. Usually such farms may be classed as family-living farms or general beef farms with no tobacco.

FARM CLASSIFICATION PHASE

You will recall that a sample of farms selected from the 1945 Census of Agriculture schedules, and grouped by size and type, were located on soil and topographic maps in order to obtain a physical description. These farms were classified first according to the three soil associations referred to above. The Hayesville-

^{7/} See text, p. 46.

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Halewood Association, which constitutes the major portion of the agricultural soil of the area, was subdivided according to the percentage of open land in "good" crop land--usually land under 10-12 percent slope.^{8/} Three subgroups were set up on this basis: 0-10 percent, 11-35 percent, and 36+ percent.

Thus, this procedure provided a physical grouping of the sample farms, as well as a grouping by size and type according to the Census classification.

Following the economic survey of a sample of these farms for the crop year 1943, referred to by Mr. Johnson, it was necessary to reclassify some farms. Since 1945 some farms had changed in size and some in type. A few of the "Census" farms were not operating units in 1948.

Original and Revised Classifications of Farms

How does the original classification from the Census schedules compare with the revised classification? Here are the preliminary results.

Type of Farm

There is little difference between the two classifications in the relative importance of general and tobacco farms. Family living farms were relatively less important in the revised classification than in the original (21 percent compared to 16 percent). Some of these "Census" farms were strictly rural residences in 1948; some could not be located. Dairy farms represented a larger proportion of farms in 1948 than in the 1945 Census sample, thus indicating a trend toward dairying--a trend which has occurred and is continuing.

Size of Farms

Farms in the survey sample were larger on the average than those in the Census sample. The percentage of farms with less than 60 acres open land dropped from 80 for the Census sample to 64 for the survey sample; those in the 60 acres plus group almost doubled. The major reasons for this situation are: (1) Elimination of small "Census" farms that were not operating units in 1948, and (2) the enlargement of some farms by the addition of one or more mountain tracts, often not reported to the Census enumerator.

Physical Resources

The survey sample shows about the same proportion of farms in each of the major soil associations as the sample originally located on soils maps. Within the major soil association (Hayesville-Halewood), the survey sample was reasonably representative of the original sample. The best soil re-

^{8/} By "good" crop land is meant land having less than 12 percent slope and which can be farmed in a 3-year rotation or less without excessive erosion.

FARM CLASSIFICATION AND ANALYSIS STUDY

source group (36+ percent "good" crop soil) had the greatest decline in relative importance. This was largely the result of dropping from the survey sample cropper units which were usually in the best soil resource group. Notwithstanding the differences in the 1945 sample and the survey sample, the Census materials proved of great value in arriving at the revised classification.

Economic Survey: Description of Major Farm Groups

I shall not bore you with either the detailed classification or description of the farms which we have grouped according to their physical characteristics, size, and type. Instead, I shall indicate only a few of the major characteristics of the important type groups. The economic information was obtained from the January survey for the 1948 crop year.

Family Living Farms

Family living farms, usually with less than twenty acres of open land, rarely have a significant acreage of "good" crop land. Production for sale is negligible. About half the operators work at off-farm jobs. Other operators are either widows or old men who sometimes rent out the small amount of crop land to neighbors.

Tobacco Farms

Tobacco farms commonly have fewer than 30 acres of open land and less than 10 percent of "good" crop land. The average farm has a small tobacco patch (0.8 acre), a few acres of corn, usually an acre or two of hay, one cow, a hog, and a few chickens. Only a few operators work off the farm.

General Farms

General farms are about equally divided between medium (30-79 acres open land) and the large (80+ acres open land) size groups. Half of them are in the low physical resource group (under 10 percent "good" crop land). The crops usually grown are tobacco, corn, and hay. Beef cattle is the principal livestock enterprise. Some farms diversify their livestock with a few milk cows, a few hogs, and a larger than average poultry flock.

Dairy Farms

Dairy farms are of two types: (1) Grade A dairies, which have 10 or more cows, and (2) ungraded or "shade tree" dairies, which usually have 5 to 8 cows. Dairy farms have 30 or more acres of open land and frequently are in the middle to high physical resource groups. Dairy farmers apparently recognize the desirability of having a fairly large acreage of "good" crop land for production of concentrates and barn roughage.

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Farm Woodland Survey

Simultaneous with the economic survey, TVA foresters made a sample plot survey of the forests on each farm. This survey will provide an overall picture of the forestry resources, management practices, use being made of the farm wood lot, and the timber needs on the farms.

FARM ANALYSIS PHASE

The soil technicians will probably have completed by today (April 6) the detailed soil maps of each of the case farms referred to by Mr. Johnson. The foresters are making a detailed survey of the forest resources of these farms, plotting their data on the enlarged soil maps.

At an early date, representatives of the Working Committee will revisit each case farm and prepare alternate farm plans designed to provide the maximum long-time net farm income.

The ten groups selected for this study are as follows:

Porters Association - (1) small size group
 Ramsey Association - (1) small size group
 Hayesville-Halewood Association - eight groups, as follows:

- (1) Small, medium, and large size farms in the low soil-resource group
- (2) Medium and large size farms in the medium soil resource group
- (3) Small, medium, and large size farms in the high soil-resource group

SOME PROBLEMS ENCOUNTERED BY FARMERS

The difficulties encountered by farmers in this county center around at least three conditions; (1) the small acreage of open land per farm, (2) the small proportion of "good" crop land, and (3) the high proportion of very steep land.

I need not enumerate to this group the ways in which farmers with less than 30 acres of open land or 10 acres in crop land are disadvantaged in an area of this kind. In addition to the small acreage, most of these small farms have little or no "good" crop land. If the operators have no off-farm jobs, the gross farm incomes are low. If the operator has an off-farm job, the farm is often neglected. Ownership of adequate equipment and power is often not economically feasible.

Many farms in all size groups are disadvantaged by having little or no "good" crop land. The dairy farmer, particularly, finds it difficult to obtain a proper balance between the production of concentrates, hay, and pasture for his dairy herd without cropping steep hillsides. Some farmers are attempting, with a measure of success, to farm the "good" crop land more intensively, not infrequently getting 60 to 80 bushels of corn per acre and 2,000 to 2,500 pounds of Burley tobacco.

FARM CLASSIFICATION AND ANALYSIS

The small size of fields, as well as the small land area and rough topography, limit the effectiveness of labor-saving equipment. As a result, in part, relatively few tractors are on farms in the county.

Pasture improvement has lagged partly because of the difficulty of getting lime and phosphate distributed on the steep pastures, many of them having 40 to 60 percent slope. Does the solution lie in a new method of distribution? In more concentrated chemicals? Or in more intensified practices on the less rugged pastures and reforestation of the steep slopes? If the latter, the future is dark for some farmers because they have little or no "less rugged pastures."

In conclusion, I am glad to tell you that we have had excellent cooperation from local agricultural agencies and that the Working Committee has been functioning as harmoniously as five persons in as many different agencies could function. Although there have been differences of opinion and some heated but friendly discussions, no tempers have flared. I believe each of us has a greater appreciation of the other fellow's field of work and in the objectives of this research study than we had at the beginning of the study.

LIST OF MEETINGS

<u>No.</u>	<u>Date</u>	<u>Place</u>	<u>Proceedings</u>
1	1933, September 25	Knoxville, Tennessee	Typed, 2 pp.
2	1933, October 7	Knoxville, Tennessee	Typed, 1 p.
3	1934, July 6-7	Chattanooga, Tennessee	Typed, 5 pp.
4	1934, October 27	Muscle Shoals, Alabama	Mimeo., 13 pp.
5	1935, December 12	Chattanooga, Tennessee	Typed, 15 pp.
6	1936, June 26-27	Chattanooga, Tennessee	Mimeo., 20 pp.
7	1937, February 6	Knoxville, Tennessee	Typed, 5 pp.
8	1937, July 10	Knoxville, Tennessee	Typed, 10 pp.
9	1937, November 3	Knoxville, Tennessee	Typed, 5 pp.
10	1938, April 25	Knoxville, Tennessee	Typed, 12 pp.
11	1938, October 4	Atlanta, Georgia	Typed, 10 pp.
12	1939, April 4	Birmingham, Alabama	Typed, 9 pp.
13	1939, October 3	Chattanooga, Tennessee	Typed, 9 pp.
14	1940, April 2	Knoxville, Tennessee	Mimeo., 17 pp.
15	1940, October 1	Asheville, North Carolina	Typed, 9 pp.
16	1941, March 4-5	Florence, Alabama	Mimeo., 32 pp.
17	1941, October 28	Atlanta, Georgia	Mimeo., 13 pp.
18	1942, March 3	Roanoke, Virginia	Mimeo., 13 pp.
19	1942, October 6	Knoxville, Tennessee	Mimeo., 44 pp.
20	1943, May 13	Atlanta, Georgia	Mimeo., 20 pp.
21	1944, April 3	Knoxville, Tennessee	Hecto., 61 pp.
22	1944, October 3	Birmingham, Alabama	Hecto., 74 pp.
23	1945, April 3	Atlanta, Georgia	Hecto., 68 pp.
24	1945, October 5	Chattanooga, Tennessee	Hecto., 88 pp.
25	1946, April 3	Atlanta, Georgia	Mimeo., 77 pp.
26	1946, October 2	Biloxi, Mississippi	Mimeo., 93 pp.
27	1947, April 2	Abingdon, Virginia	Mimeo., 86 pp.
28	1947, October 1	Knoxville, Tennessee	Dupli., 71 pp.
29	1948, April 7	Lexington, Kentucky	Dupli., 65 pp.
30	1948, October 6	Asheville, North Carolina	Dupli., 94 pp.
31	1949, April 6	Birmingham, Alabama	Dupli., 81 pp.

